|   |                             |                  |                            | D          | ST<br>DEPARTMENT<br>DIVISION C |               | AL RESOUR      |             |   | AMEND  | FOR        |          |        |  |  |
|---|-----------------------------|------------------|----------------------------|------------|--------------------------------|---------------|----------------|-------------|---|--|------------|----------|--------|--|--|
|   |                             | А                | PPLICATION FOR             | PERMIT     | TO DRILL                       |               |                |             | 1. WELL NAME and N                      | UMBER<br>Grace 3-16  | 6-3-3WH    |          |        |  |  |
| 2. TYPE OI  | F WORK                      | DRILL NEW WELL   | REENTER P&                 | A WELL [   | DEEPEN                         | WELL _        |                |             | 3. FIELD OR WILDCA                      | T<br>WILDO   | CAT        |          |        |  |  |
| 4. TYPE OF  | WELL                        | (                | Dil Well Coalbe            | ed Methane | e Well: NO                     |               |                |             | 5. UNIT or COMMUNI                      | TIZATION   | AGREEME    | NT NAM   | E      |  |  |
| 6. NAME OF OPERATOR  NEWFIELD PRODUCTION COMPANY  |                             |                  |                            |            |                                |               |                |             | 7. OPERATOR PHONE                       | 435 646  | -4825      |          |        |  |  |
| 8. ADDRESS OF OPERATOR Rt 3 Box 3630 , Myton, UT, 84052   |                             |                  |                            |            |                                |               |                |             | 9. OPERATOR E-MAI                       | L<br>:rozier@ne  | wfield.com | 1        |        |  |  |
| 10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) Patented  11. MINERAL OWNERSHIP FEDERAL INDIAN STATE |                             |                  |                            |            |                                |               |                | FEE (iii)   | 12. SURFACE OWNER                       | SHIP<br>DIAN   | STATE      | ) FE     | E (10) |  |  |
| 13. NAME  | OF SURFACE                  | OWNER (if box 12 | ! = 'fee')<br>Wayne and Ja | n Hanber   | 2                              |               |                |             | 14. SURFACE OWNE                        | R PHONE (<br>435-733   |            | 'fee')   |        |  |  |
| 15. ADDRE   | SS OF SURFA                 | CE OWNER (if bo  | ·                          |            | -                              |               |                |             | 16. SURFACE OWNE                        |  |            | = 'fee') |        |  |  |
|   | I ALLOTTEE O<br>= 'INDIAN') | R TRIBE NAME     | 110 04 BOX 102, But        | 18. INTE   | ND TO COMM<br>E FORMATIO       |               |                | NO 📵        | 19. SLANT  VERTICAL DI                  | RECTIONAL  | _ н        | ORIZONT  | AL (📵) |  |  |
| 20. LOCA  | TION OF WELI                |                  | FC                         | OTAGES     |                                | QTR-Q         | TR             | SECTION _   | TOWNSHIP                                | RA   | NGE        | МЕ       | RIDIAN |  |  |
| LOCATIO   | N AT SURFAC                 |                  | 326 FN                     | L 1488 F   | WL                             | NENW          | v              | 16          | 3.0 \$                                  | 3.0  | ) W        |          | U      |  |  |
| Top of U  | opermost Prod               | lucing Zone      | 660 FN                     | L 1983 F   | WL                             | NENW          | V              | 16          | 3.0 S                                   | 3.0  | ) W        |          | U      |  |  |
| At Total  | Depth                       |                  | 660 FS                     | L 1986 F   | WL                             | SESW          | ,              | 16          | 3.0 S                                   | 3.0  | ) W        |          | U      |  |  |
| 21. COUN  | TY                          | DUCHESNE         |                            | 22. DIST   | ANCE TO NEA                    | REST LEASE    | LINE (Feet)    | 1           | 23. NUMBER OF ACRES IN DRILLING UNIT    |  |            |          |        |  |  |
|   |                             |                  |                            | 25. DISTA  | ANCE TO NEA                    | REST WELL     | IN SAME PO     | OL          | 26. PROPOSED DEPT                       |  |            | 6        |        |  |  |
| 27. ELEVA   | TION - GROUP                | ND LEVEL         |                            | 28. BONI   | D NUMBER                       | B001834       | $\Diamond$     | <u> </u>    | 29. SOURCE OF DRIL<br>WATER RIGHTS APPR |  | IBER IF AF | PLICABL  | .E     |  |  |
|   |                             |                  |                            | H          | ole, Casing                    |               | _              | ation       |   |  |            |          |        |  |  |
| String  | Hole Size                   | Casing Size      | Length                     | Weigh      | Grade                          | & Thread      | Max Mu         | d Wt.       | Cement                                  | Cement         Sacks         Yield         Weight           Class G         35         1.17         15.8 |            |          |        |  |  |
| COND  | 17.5                        | 14               | 0 - 60                     | 37.0       |                                | ST&C          | 0.0            |             |   |  |            |          |        |  |  |
| SURF  | 12.25                       | 9.625            | 0 - 2500                   | 36.0       | J-55                           | ST&C          | 0.0            | ) P         | Class G                                 | rengtn   | 154        | 1.17     | 11.0   |  |  |
| I1  | 8.75                        | 7                | 0 - 9258                   | 26.0       | P-11                           | 0 LT&C        | 10.            | 5 P         | remium Lite High St                     | rength   | 259        | 3.53     | 11.0   |  |  |
|   |                             |                  |                            |            |                                |               |                |             | 50/50 Poz 4                             |  |            | 1.24     | 14.3   |  |  |
| PROD  | 6.125                       | 4.5              | 8369 - 13167               | 13.5       | P-11                           | 0 LT&C        | 10.            | 5           | No Used 0 0.0                           |  |            |          | 0.0    |  |  |
|   |                             |                  | 1                          |            | A                              | TTACHME       | NTS            |             |   |  |            |          |        |  |  |
|   | VEF                         | RIFY THE FOLLO   | OWING ARE ATTAC            | CHED IN    | ACCORDAN                       | ICE WITH T    | HE UTAH (      | OIL AND GAS | CONSERVATION O                          | ENERAL   | RULES      |          |        |  |  |
| <b>₩</b>  | ELL PLAT OR                 | AP PREPARED BY   | LICENSED SURVEYO           |            | COMPLE                         | TE DRILLING F | PLAN           |             |   |  |            |          |        |  |  |
| AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)   |                             |                  |                            |            |                                |               | FORM 5. I      | IF OPERATOR | IS OTHER THAN THE L                     | EASE OWN   | IER        |          |        |  |  |
| DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)  |                             |                  |                            |            |                                |               |                | APHICAL MAP |   |  |            |          |        |  |  |
| NAME Do   | n Hamilton                  |                  |                            | 7          | FITLE Permitti                 | ng Agent      |                |             | PHONE 435 719-2                         | 018  |            |          |        |  |  |
| SIGNATURE DATE 01/17/2012   |                             |                  |                            |            |                                |               |                |             | EMAIL starpoint@e                       | tv.net   |            |          |        |  |  |
| API NUMBER ASSIGNED APPROVAL 43013511850000   |                             |                  |                            |            |                                |               |                | 3           | nalgyll                                 |  |            |          |        |  |  |
|   |                             |                  |                            |            |                                |               | Permit Manager |             |   |  |            |          |        |  |  |

# Newfield Production Company

Grace 3-16-3-3WH

Surface Hole Location: 326' FNL, 1488' FWL, Section 16, T3S, R3W Bottom Hole Location: 660' FSL, 1986' FWL, Section 16, T3S, R3W

**Duchesne County, UT** 

# **Drilling Program**

# 1. Formation Tops

Uinta surface
Green River 3,642'
Garden Gulch member 6,281'
Wasatch 9,098'
Pilot Hole TD 9,400'

Lateral TD 8,786' TVD / 13,167' MD

# 2. Depth to Oil, Gas, Water, or Minerals

Base of moderately saline 1,050' (water)
Green River 6,281' - 8,786' (oil)

Note: The pilot hole will be drilled into the Wasatch formation for evaluation and targeting purposes only. The lateral will be drilled in the Green River formation.

#### 3. Pressure Control

Section BOP Description

Surface 12-1/4" diverter

Interm/Prod The BOP and related equipment shall meet the minimum requirements of Onshore

Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc

for a 5M system.

A 5M BOP system will consist of 2 ram preventers (double or two singles) and an annular preventer (see attached diagram). A choke manifold rated to at least 5,000 psi will be used.

# 4. Casing

| Davistica    | Interval |                    | Weight | Grade | Carra | Pore            | MW @ | Frac | Safety Factors |          |         |  |
|--------------|----------|--------------------|--------|-------|-------|-----------------|------|------|----------------|----------|---------|--|
| Description  | Тор      | Bottom<br>(TVD/MD) | (ppf)  | Graue | Coup  | Press @<br>Shoe | Shoe | Grad | Burst          | Collapse | Tension |  |
| Conductor    | 0'       | 60'                | 37     | H-40  | Weld  |                 |      |      |                |          |         |  |
| 14           | U        | 00                 | 37     | 11 40 | W Cld |                 |      |      |                |          |         |  |
| Surface      | 0'       | 2,500'             | 36     | J-55  | LTC   | 8.33            | 8.33 | 12   | 3,520          | 2,020    | 453,000 |  |
| 9 5/8        | U        | 2,300              | 30     | 1-33  | LIC   | 6.33            | 6.33 | 12   | 2.51           | 2.54     | 5.03    |  |
| Intermediate | 0'       | 8,940'             | 26     | P-110 | ВТС   | 10              | 10.5 | 15   | 9,960          | 6,210    | 830,000 |  |
| 7            | U        | 9,258'             | 20     | P-110 | ыс    | 10              | 10.3 | 13   | 2.65           | 1.56     | 3.45    |  |
| Production   | 0.2601   | 8,786'             | 12.5   | D 110 | DTC   | 10              | 10.5 |      | 12,410         | 10,670   | 422,000 |  |
| 4 1/2        | 8,369'   | 13,167'            | 13.5   | P-110 | BTC   | 10              | 10.5 |      | 3.36           | 2.72     | 6.52    |  |

# Assumptions:

Surface casing MASP = (frac gradient + 1.0 ppg) - (gas gradient)

Intermediate casing MASP = (reservoir pressure) - (gas gradient)

Production casing MASP = (reservoir pressure) - (gas gradient)

All collapse calculations assume fully evacuated casing with a gas gradient

All tension calculations assume air weight of casing

Gas gradient = 0.1 psi/ft

All casing shall be new.

All casing strings shall have a minimum of 1 centralizer on each of the bottom 3 joints.

#### 5. Cement

| Job                     | Hole Size | Fill   | Slurry Description   | ft <sup>3</sup> | OH excess | Weight<br>(ppg) | Yield<br>(ft³/sk) |
|-------------------------|-----------|--------|--|-----------------|-----------|-----------------|-------------------|
| Conductor               | 17 1/2    | 60'    | Class G w/ 2% KCl + 0.25 lbs/sk Cello<br>Flake                           | 41<br>35        | 15%       | 15.8            | 1.17              |
| Surface<br>Lead         | 12 1/4    | 2,000' | Premium Lite II w/ 3% KCl + 10% bentonite                                | 720<br>204      | 15%       | 11.0            | 3.53              |
| Surface<br>Tail         | 12 1/4    | 500'   | Class G w/ 2% KCl + 0.25 lbs/sk Cello<br>Flake                           | 180<br>154      | 15%       | 15.8            | 1.17              |
| Pilot Hole<br>Plug Back | 8 3/4     | 1,016' | 50/50 Poz/Class G w/ 3% KCl + 2% bentonite                               | 488<br>394      | 15%       | 14.3            | 1.24              |
| Intermediate<br>Lead    | 8 3/4     | 5,281' | Premium Lite II w/ 3% KCl + 10% bentonite                                | 913<br>259      | 15%       | 11.0            | 3.53              |
| Intermediate<br>Tail    | 8 3/4     | 2,977' | 50/50 Poz/Class G w/ 3% KCl + 2% bentonite                               | 515<br>415      | 15%       | 14.3            | 1.24              |
| Production              | 6 1/8     |        | Liner will not be cemented. It will be isolated with a liner top packer. |                 |           |                 |                   |

The surface casing will be cemented to surface. In the event that cement does not reach surface during the primary cement job, a remedial job will be performed.

Actual cement volumes for the pilot hole plug back and the intermediate casing string will be calculated from an open hole caliper log, plus 15% excess.

The production liner will be left uncemented. Individual frac stages will be isolated with open hole packers. A liner top hanger and packer will be installed 50' above KOP.

# 6. Type and Characteristics of Proposed Circulating Medium

# <u>Interval</u> <u>Description</u>

Surface - 2,500'

An air and/or fresh water system will be utilized. If an air rig is used, the blooie line discharge may be less than 100' from the wellbore in order to minimize location size. The blooie line is not equipped with an automatic igniter. The air compressor may be located less than 100' from the well bore due to the low possibility of combustion with the air/dust mixture. Water will be on location to be used as kill fluid, if necessary.

2,500' - TD A water based mud system will be utilized. Hole stability may be improved

with additions of KCl or a similar inhibitive substance. In order to control formation pressure the system will be weighted with additions of bentonite, and

if conditions warrant, with barite.

Anticipated maximum mud weight is 10.5 ppg.

# 7. Logging, Coring, and Testing

Logging: A dual induction, gamma ray, and caliper log will be run from TD to the base of the

surface casing. A compensated neutron/formation density log will be run from TD to the top of the Garden Gulch formation. A cement bond log will be run from PBTD to the

cement top behind the production casing.

Cores: As deemed necessary.

DST: There are no DST's planned for this well.

# 8. Anticipated Abnormal Pressure or Temperature

Maximum anticipated bottomhole pressure will be approximately equal to total depth (feet) multiplied by a 0.52 psi/ft gradient.

$$8,786' \text{ x} \quad 0.52 \quad psi/ft = 4569 \quad psi$$

No abnormal temperature is expected. No H<sub>2</sub>S is expected.

# 9. Other Aspects

An 8-3/4" pilot hole will be drilled in order to determine the depth to the lateral target zone.

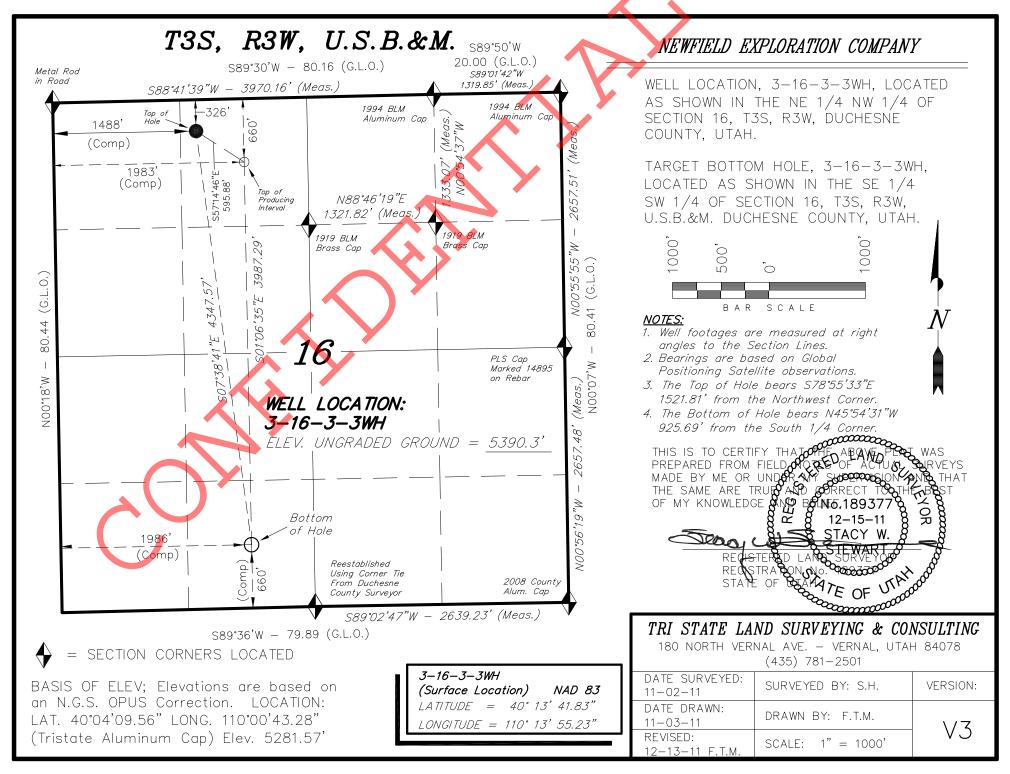
The pilot hole will be logged, and then plugged back in prepartion for horizontal operations.

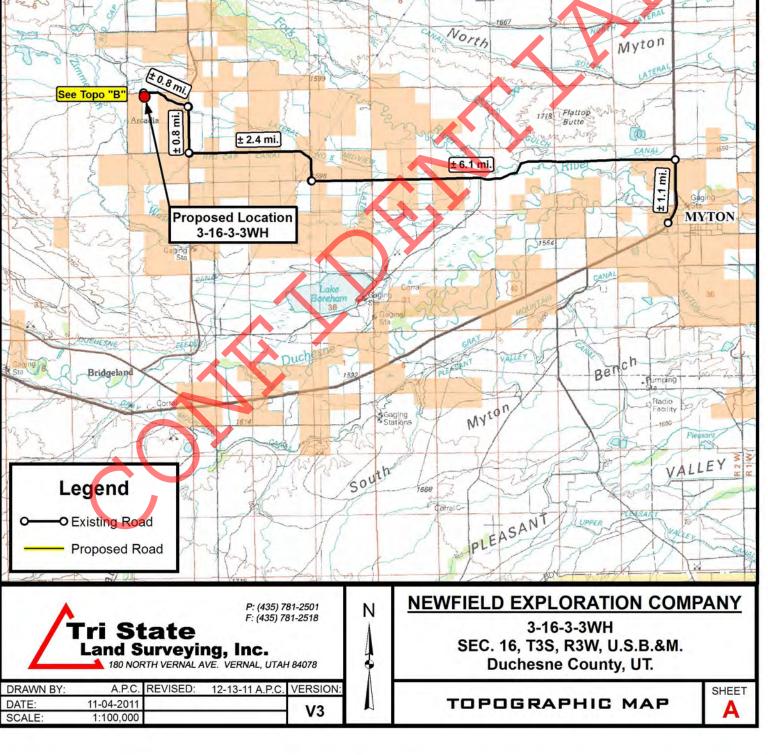
Directional tools will then be used to build to 92.24 degrees inclination.

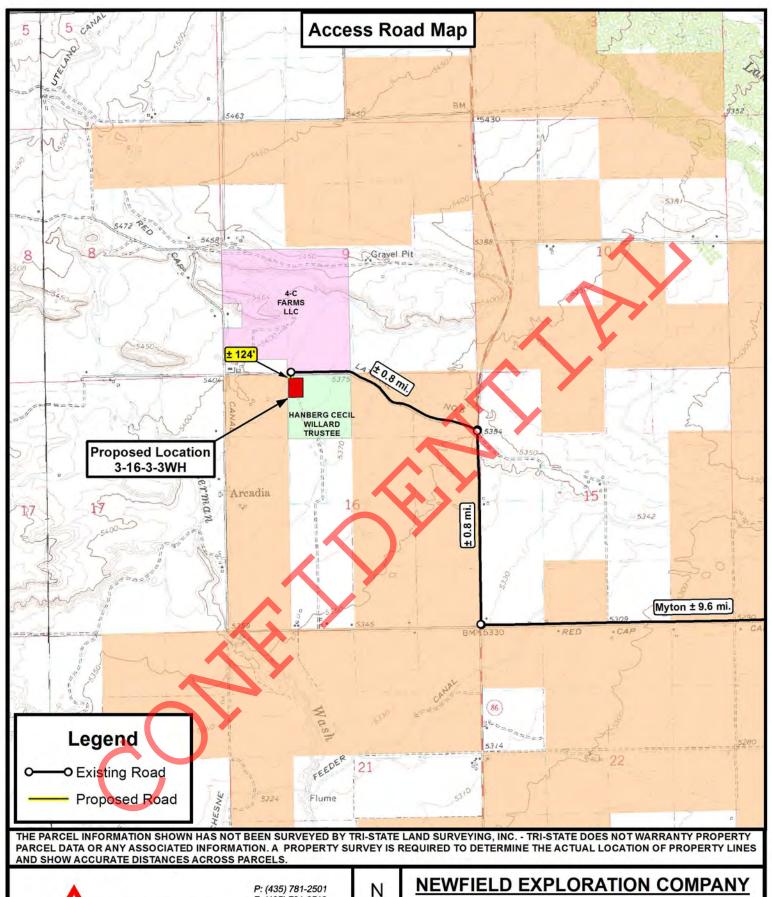
The 7" intermediate casing string will be set once the well is landed horizontally in the target zone.

The lateral will be drilled to the bottomhole location shown on the plat.

A liner with a system of open hole packers will be used to provide multi-stage frac isolation in the lateral. The top of the liner will be place 50' above KOP and will be isolated with a liner top packer.









F: (435) 781-2518

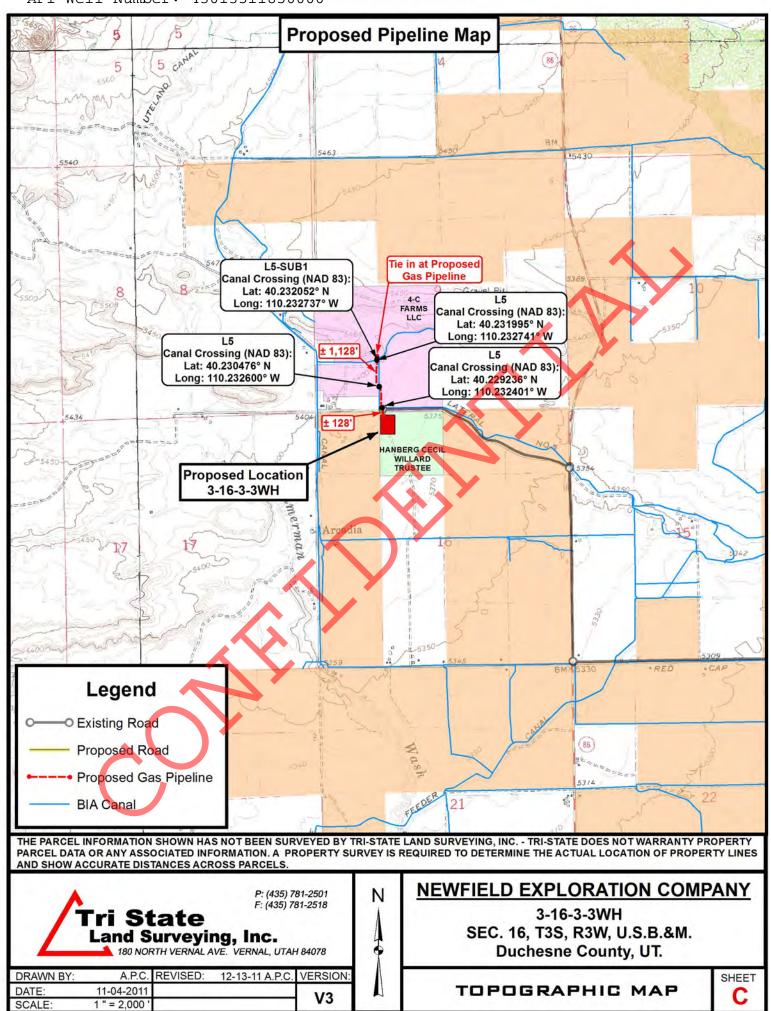
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

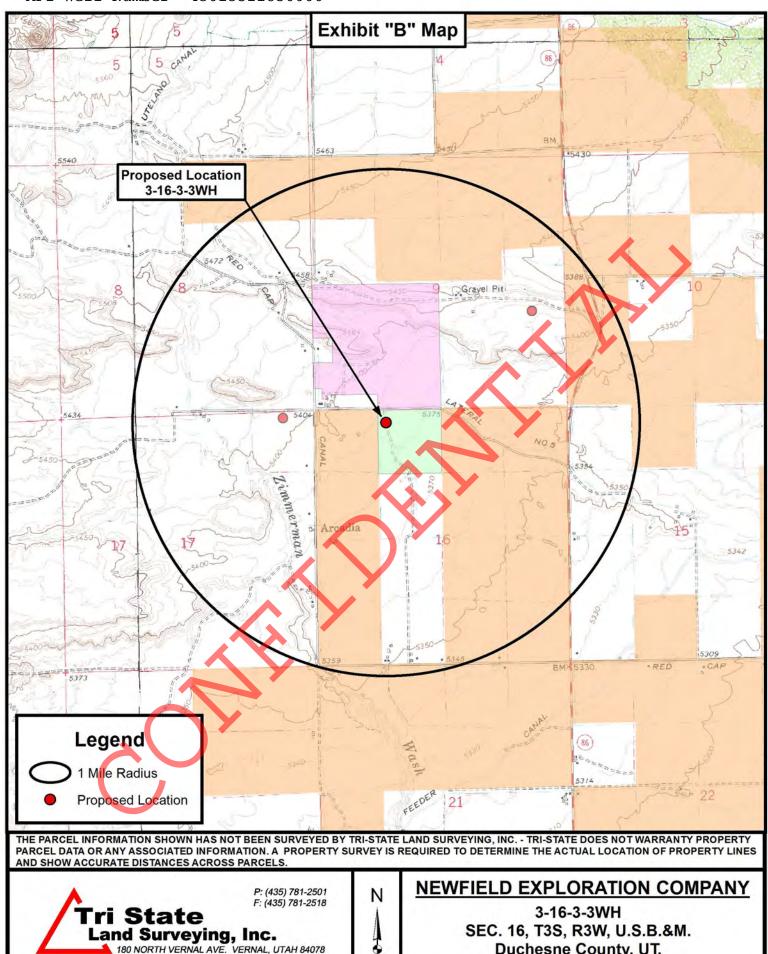
| DRAWN BY: | A.P.C.     | REVISED: | 12-13-11 A.P.C. | VERSION: |
|-----------|------------|----------|-----------------|----------|
| DATE:     | 11-04-2011 |          |                 | 1/2      |
| SCALE:    | 1"=2,000'  |          |                 | V3       |

3-16-3-3WH SEC. 16, T3S, R3W, U.S.B.&M. **Duchesne County, UT.** 

TOPOGRAPHIC MAP







DRAWN BY A.P.C. 12-13-11 A.P.C. **VERSION** DATE 11-04-2011 V3 SCALE 1 " = 2,000

**Duchesne County, UT.** 

TOPOGRAPHIC MAP







**DUCHESNE COUNTY, UT GRACE 3-16-3-3WH** 

Plan: Design #1

# Standard Survey Report

24 FEBRUARY, 2012



API Well Number: 43013511850000

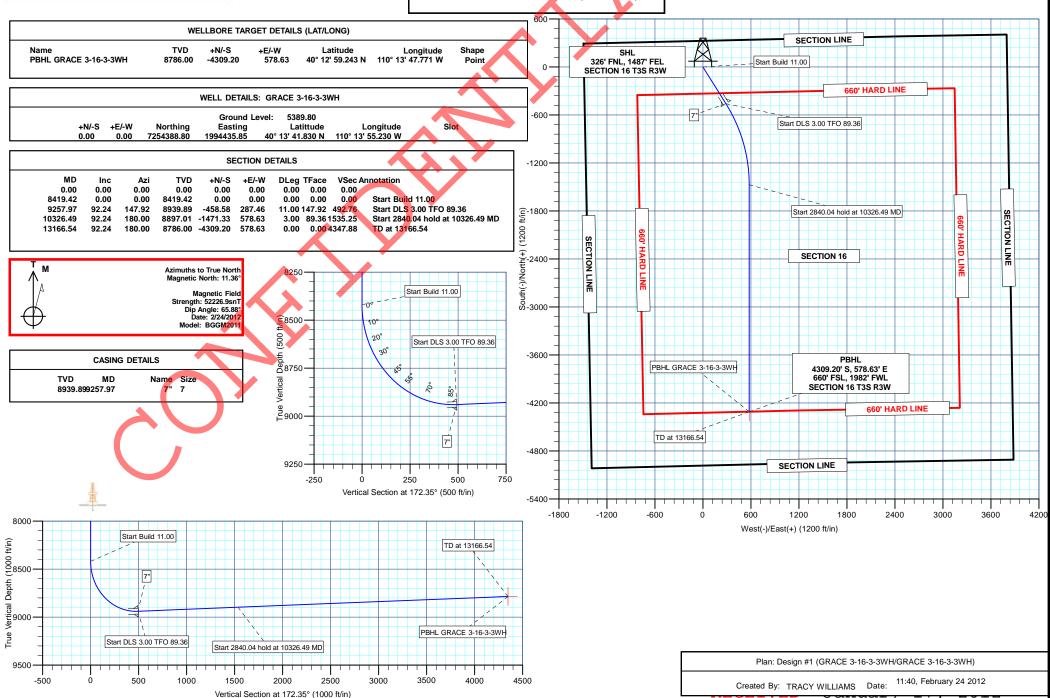
NEWFIELD

Project: DUCHESNE COUNTY, UT Site: GRACE 3-16-3-3WH Well: GRACE 3-16-3-3WH Wellbore: GRACE 3-16-3-3WH Design: Design #1

Latitude: 40° 13' 41.830 N Longitude: 110° 13' 55.230 W GL: 5389.80

KB: WELL @ 5407.80ft (PIONEER 68)







# **NEWFIELD EXPLORATION CO.**

DUCHESNE COUNTY, UT GRACE 3-16-3-3WH GRACE 3-16-3-3WH

**GRACE 3-16-3-3WH** 

Plan: Design #1

# Standard Planning Report

24 February, 2012





Design:

Site

# Weatherford International Ltd.

Planning Report



Database: EDM 2003.21 Single User Db Company: NEWFIELD EXPLORATION CO. Project: DUCHESNE COUNTY, UT GRACE 3-16-3-3WH Site: Well: **GRACE 3-16-3-3WH** Wellbore: **GRACE 3-16-3-3WH** 

TVD Reference: MD Reference: North Reference: **Survey Calculation Method:** 

Local Co-ordinate Reference:

Site GRACE 3-16-3-3WH WELL @ 5407.80ft (PIONEER 68) WELL @ 5407.80ft (PIONEER 68)

Minimum Curvature

**Project** DUCHESNE COUNTY, UT

Design #1

North American Datum 1983 Geo Datum:

Map Zone: Utah Central Zone

GRACE 3-16-3-3WH

Map System: US State Plane 1983 System Datum: Mean Sea Level

Site Position:

Northing: 7,254,388.80ft Latitude: 40° 13' 41.830 N From: Lat/Long Easting: 1,994,435.85ft Longitude: 110° 13' 55.230 W **Position Uncertainty:** 0.00 ft Slot Radius: Grid Convergence: 0.81°

GRACE 3-16-3-3WH Well

**Well Position** +N/-S 0.00 ft Northing: 7,254,388.80 ft Latitude: 40° 13' 41.830 N 1,994,435.85 ft +E/-W 0.00 ft Easting: Longitude 110° 13' 55.230 W

**Position Uncertainty** 0.00 ft Wellhead Elevation: Ground Level: 5,389.80 ft

GRACE 3-16-3-3WH Wellbore

Field Strength Declination **Magnetics Model Name Sample Date Dip Angle** (°) (nT) 11.36 BGGM2011 2/24/2012 65.88 52,227

Design Design #1

**Audit Notes:** 

Version: Phase: PLAN Tie On Depth: 0.00

**Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 172.35

| Plan Sections             | s                  |         |                           |               |               |                             |                            |                           |            |                 |
|---------------------------|--------------------|---------|---------------------------|---------------|---------------|-----------------------------|----------------------------|---------------------------|------------|-----------------|
| Measured<br>Depth<br>(ft) | Inclination<br>(°) | Azimuth | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Dogleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) | TFO<br>(°) | Target          |
| 0.00                      | 0.00               | 0.00    | 0.00                      | 0.00          | 0.00          | 0.00                        | 0.00                       | 0.00                      | 0.00       |                 |
| 8,419.42                  | 0.00               | 0.00    | 8,419.42                  | 0.00          | 0.00          | 0.00                        | 0.00                       | 0.00                      | 0.00       |                 |
| 9,257.97                  | 92.24              | 147.92  | 8,939.89                  | -458.58       | 287.46        | 11.00                       | 11.00                      | 0.00                      | 147.92     |                 |
| 10,326.49                 | 92.24              | 180.00  | 8,897.01                  | -1,471.33     | 578.63        | 3.00                        | 0.00                       | 3.00                      | 89.36      |                 |
| 13,166.54                 | 92.24              | 180.00  | 8,786.00                  | -4,309.20     | 578.63        | 0.00                        | 0.00                       | 0.00                      | 0.00 F     | PBHL GRACE 3-16 |



# Weatherford International Ltd.

**Planning Report** 



Database: Company: Project: Site: Well:

Wellbore:

EDM 2003.21 Single User Db NEWFIELD EXPLORATION CO. DUCHESNE COUNTY, UT GRACE 3-16-3-3WH

GRACE 3-16-3-3WH GRACE 3-16-3-3WH

Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Site GRACE 3-16-3-3WH

WELL @ 5407.80ft (PIONEER 68) WELL @ 5407.80ft (PIONEER 68)

True

Minimum Curvature

| Design:  | Design #1                            |  |  |                                      |                                      |  |  |                                      |                                      |  |
|--|--------------------------------------|--|--|--------------------------------------|--------------------------------------|--|--|--------------------------------------|--------------------------------------|--|
| Planned Survey   |                                      |  |  |                                      |                                      |  |  |                                      |                                      |  |
| Measured<br>Depth<br>(ft)                                | Inclination (°)                      | Azimuth<br>(°)                               | Vertical<br>Depth<br>(ft)                                | +N/-S<br>(ft)                        | +E/-W<br>(ft)                        | Vertical<br>Section<br>(ft)                  | Dogleg<br>Rate<br>(°/100ft)                  | Build<br>Rate<br>(°/100ft)           | Turn<br>Rate<br>(°/100ft)            |  |
| 0.00   | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 100.00   | 0.00                                 | 0.00   | 100.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 200.00   | 0.00                                 | 0.00   | 200.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 300.00   | 0.00                                 | 0.00   | 300.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 400.00   | 0.00                                 | 0.00   | 400.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 500.00   | 0.00                                 | 0.00   | 500.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 600.00   | 0.00                                 | 0.00   | 600.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 700.00   | 0.00                                 | 0.00   | 700.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 800.00   | 0.00                                 | 0.00   | 800.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 900.00   | 0.00                                 | 0.00   | 900.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 1,000.00<br>1,100.00<br>1,200.00<br>1,300.00<br>1,400.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00         | 1,000.00<br>1,100.00<br>1,200.00<br>1,300.00<br>1,400.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00 |  |
| 1,500.00   | 0.00                                 | 0.00   | 1,500.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 1,600.00   | 0.00                                 | 0.00   | 1,600.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 1,700.00   | 0.00                                 | 0.00   | 1,700.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 1,800.00   | 0.00                                 | 0.00   | 1,800.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 1,900.00   | 0.00                                 | 0.00   | 1,900.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 2,000.00   | 0.00                                 | 0.00   | 2,000.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 2,100.00   | 0.00                                 | 0.00   | 2,100.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 2,200.00   | 0.00                                 | 0.00   | 2,200.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 2,300.00   | 0.00                                 | 0.00   | 2,300.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 2,400.00   | 0.00                                 | 0.00   | 2,400.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 2,500.00   | 0.00                                 | 0.00   | 2,500.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 2,600.00   | 0.00                                 | 0.00   | 2,600.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 2,700.00   | 0.00                                 | 0.00   | 2,700.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 2,800.00   | 0.00                                 | 0.00   | 2,800.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 2,900.00   | 0.00                                 | 0.00   | 2,900.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 3,000.00<br>3,100.00<br>3,200.00<br>3,300.00<br>3,400.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00 | 3,000.00<br>3,100.00<br>3,200.00<br>3,300.00<br>3,400.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00         | 0.00<br>0.00<br>0.00<br>0.00<br>0.00         | 0.00<br>0.00<br>0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00<br>0.00<br>0.00 |  |
| 3,500.00   | 0.00                                 | 0.00   | 3,500.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 3,600.00   | 0.00                                 | 0.00   | 3,600.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 3,700.00   | 0.00                                 | 0.00   | 3,700.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 3,800.00   | 0.00                                 | 0.00   | 3,800.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 3,900.00   | 0.00                                 | 0.00   | 3,900.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 4,000.00   | 0.00                                 | 0.00   | 4,000.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 4,100.00   | 0.00                                 | 0.00   | 4,100.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 4,200.00   | 0.00                                 | 0.00   | 4,200.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 4,300.00   | 0.00                                 | 0.00   | 4,300.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 4,400.00   | 0.00                                 | 0.00   | 4,400.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 4,500.00   | 0.00                                 | 0.00   | 4,500.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 4,600.00   | 0.00                                 | 0.00   | 4,600.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 4,700.00   | 0.00                                 | 0.00   | 4,700.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 4,800.00   | 0.00                                 | 0.00   | 4,800.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 4,900.00   | 0.00                                 | 0.00   | 4,900.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 5,000.00   | 0.00                                 | 0.00   | 5,000.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 5,100.00   | 0.00                                 | 0.00   | 5,100.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 5,200.00   | 0.00                                 | 0.00   | 5,200.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |
| 5,300.00   | 0.00                                 | 0.00   | 5,300.00   | 0.00                                 | 0.00                                 | 0.00   | 0.00   | 0.00                                 | 0.00                                 |  |



# Weatherford International Ltd.

**Planning Report** 



Database: Company: Project: Site: Well:

Wellbore:

EDM 2003.21 Single User Db NEWFIELD EXPLORATION CO. DUCHESNE COUNTY, UT GRACE 3-16-3-3WH

GRACE 3-16-3-3WH GRACE 3-16-3-3WH Local Co-ordinate Reference: TVD Reference:

MD Reference:
North Reference:

**Survey Calculation Method:** 

Site GRACE 3-16-3-3WH WELL @ 5407.80ft (PIONEER 68)

WELL @ 5407.80ft (PIONEER 68)

True

Minimum Curvature

| Design:   | Design #1                        |                                      |  |  |                                      |                                      |                                  |                                  |                              |
|---|----------------------------------|--------------------------------------|--|--|--------------------------------------|--------------------------------------|----------------------------------|----------------------------------|------------------------------|
| Planned Survey  |                                  |                                      |  |  |                                      |                                      |                                  |                                  |                              |
| Measured<br>Depth<br>(ft)                                 | Inclination (°)                  | Azimuth<br>(°)                       | Vertical<br>Depth<br>(ft)                    | +N/-S<br>(ft)                            | +E/-W<br>(ft)                        | Vertical<br>Section<br>(ft)          | Dogleg<br>Rate<br>(°/100ft)      | Build<br>Rate<br>(°/100ft)       | Turn<br>Rate<br>(°/100ft)    |
| 5,400.00  | 0.00                             | 0.00                                 | 5,400.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 5,500.00  | 0.00                             | 0.00                                 | 5,500.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 5,600.00  | 0.00                             | 0.00                                 | 5,600.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 5,700.00  | 0.00                             | 0.00                                 | 5,700.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 5,800.00  | 0.00                             | 0.00                                 | 5,800.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 5,900.00  | 0.00                             | 0.00                                 | 5,900.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 6,000.00  | 0.00                             | 0.00                                 | 6,000.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 6,100.00  | 0.00                             | 0.00                                 | 6,100.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 6,200.00  | 0.00                             | 0.00                                 | 6,200.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 6,300.00  | 0.00                             | 0.00                                 | 6,300.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 6,400.00  | 0.00                             | 0.00                                 | 6,400.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 6,500.00  | 0.00                             | 0.00                                 | 6,500.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 6,600.00  | 0.00                             | 0.00                                 | 6,600.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 6,700.00  | 0.00                             | 0.00                                 | 6,700.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 6,800.00  | 0.00                             | 0.00                                 | 6,800.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 6,900.00  | 0.00                             | 0.00                                 | 6,900.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 7,000.00  | 0.00                             | 0.00                                 | 7,000.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 7,100.00  | 0.00                             | 0.00                                 | 7,100.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 7,200.00  | 0.00                             | 0.00                                 | 7,200.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 7,300.00  | 0.00                             | 0.00                                 | 7,300.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 7,400.00  | 0.00                             | 0.00                                 | 7,400.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 7,500.00  | 0.00                             | 0.00                                 | 7,500.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 7,600.00  | 0.00                             | 0.00                                 | 7,600.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 7,700.00  | 0.00                             | 0.00                                 | 7,700.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 7,800.00  | 0.00                             | 0.00                                 | 7,800.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 7,900.00  | 0.00                             | 0.00                                 | 7,900.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 8,000.00  | 0.00                             | 0.00                                 | 8,000.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 8,100.00  | 0.00                             | 0.00                                 | 8,100.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 8,200.00  | 0.00                             | 0.00                                 | 8,200.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 8,300.00  | 0.00                             | 0.00                                 | 8,300.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 8,400.00  | 0.00                             | 0.00                                 | 8,400.00                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| Start Build   |                                  | 0.00                                 | 0.440.40                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 8,419.42  | 0.00                             | 0.00                                 | 8,419.42                                     | 0.00                                     | 0.00                                 | 0.00                                 | 0.00                             | 0.00                             | 0.00                         |
| 8,500.00  | 8.86                             | 147.92                               | 8,499.68                                     | -5.27                                    | 3.30                                 | 5.66                                 | 11.00                            | 11.00                            | 0.00                         |
| 8,600.00  | 19.86                            | 147.92                               | 8,596.40                                     | -26.26                                   | 16.46                                | 28.21                                | 11.00                            | 11.00                            | 0.00                         |
| 8,700.00  | 30.86                            | 147.92                               | 8,686.63                                     | -62.50                                   | 39.18                                | 67.16                                | 11.00                            | 11.00                            | 0.00                         |
| 8,800.00  | 41.86                            | 147.92                               | 8,767.03                                     | -112.66                                  | 70.62                                | 121.05                               | 11.00                            | 11.00                            | 0.00                         |
| 8,900.00<br>9,000.00<br>9,100.00<br>9,200.00<br>Start DLS | 52.86<br>63.86<br>74.86<br>85.86 | 147.92<br>147.92<br>147.92<br>147.92 | 8,834.66<br>8,887.03<br>8,922.22<br>8,938.93 | -174.89<br>-246.92<br>-326.09<br>-409.50 | 109.63<br>154.78<br>204.41<br>256.69 | 187.93<br>265.32<br>350.40<br>440.02 | 11.00<br>11.00<br>11.00<br>11.00 | 11.00<br>11.00<br>11.00<br>11.00 | 0.00<br>0.00<br>0.00<br>0.00 |
| 9,257.97  | 92.24                            | 147.92                               | 8,939.89                                     | -458.59                                  | 287.46                               | 492.76                               | 11.00                            | 11.00                            | 0.00                         |
| 9,300.00  | 92.25                            | 149.18                               | 8,938.25                                     | -494.41                                  | 309.37                               | 531.19                               | 3.00                             | 0.03                             | 3.00                         |
| 9,400.00  | 92.28                            | 152.18                               | 8,934.29                                     | -581.53                                  | 358.29                               | 624.04                               | 3.00                             | 0.03                             | 3.00                         |
| 9,500.00  | 92.30                            | 155.19                               | 8,930.29                                     | -671.08                                  | 402.58                               | 718.69                               | 3.00                             | 0.02                             | 3.00                         |
| 9,600.00  | 92.32                            | 158.19                               | 8,926.25                                     | -762.83                                  | 442.12                               | 814.89                               | 3.00                             | 0.02                             | 3.00                         |
| 9,700.00  | 92.33                            | 161.19                               | 8,922.20                                     | -856.53                                  | 476.80                               | 912.36                               | 3.00                             | 0.01                             | 3.00                         |
| 9,800.00  | 92.33                            | 164.19                               | 8,918.13                                     | -951.91                                  | 506.52                               | 1,010.85                             | 3.00                             | 0.00                             | 3.00                         |
| 9,900.00  | 92.33                            | 167.20                               | 8,914.07                                     | -1,048.72                                | 531.21                               | 1,110.08                             | 3.00                             | 0.00                             | 3.00                         |
| 10,000.00   | 92.32                            | 170.20                               | 8,910.02                                     | -1,146.68                                | 550.79                               | 1,209.79                             | 3.00                             | -0.01                            | 3.00                         |
| 10,100.00   | 92.30                            | 173.20                               | 8,905.99                                     | -1,245.55                                | 565.22                               | 1,309.69                             | 3.00                             | -0.02                            | 3.00                         |
| 10,200.00   | 92.28                            | 176.20                               | 8,901.99                                     | -1,345.03                                | 574.44                               | 1,409.51                             | 3.00                             | -0.02                            | 3.00                         |



12,800.00

12,900.00

13,000.00

13,100.00

13.166.54

92.24

92.24

92.24

92.24

TD at 13166.54 - PBHL GRACE 3-16-3-3WH

92.24

180.00

180.00

180.00

180.00

180.00

8,800.33

8,796.42

8.792.51

8,788.60

8,786.00

Wellbore:

Design:

# Weatherford International Ltd.

**Planning Report** 



EDM 2003.21 Single User Db Database: Company: NEWFIELD EXPLORATION CO. Project: DUCHESNE COUNTY, UT GRACE 3-16-3-3WH Site: Well: **GRACE 3-16-3-3WH** 

Design #1

**GRACE 3-16-3-3WH** 

**Local Co-ordinate Reference: TVD Reference: MD Reference:** North Reference: **Survey Calculation Method:** 

Site GRACE 3-16-3-3WH WELL @ 5407.80ft (PIONEER 68) WELL @ 5407.80ft (PIONEER 68) True

Minimum Curvature

| nned Survey               |                    |                |                           |               |               |                             |                             |                            |                           |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| Measured<br>Depth<br>(ft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Vertical<br>Section<br>(ft) | Dogleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) |
| 10,300.00                 | 92.25              | 179.20         | 8,898.04                  | -1,444.86     | 578.45        | 1,508.99                    | 3.00                        | -0.03                      | 3.00                      |
| Start 2840                | 0.04 hold at 103   | 326.49 MD      |                           |               |               |                             |                             |                            |                           |
| 10,326.49                 | 92.24              | 180.00         | 8,897.01                  | -1,471.33     | 578.63        | 1,535.25                    | 3.00                        | -0.03                      | 3.00                      |
| 10,400.00                 | 92.24              | 180.00         | 8,894.13                  | -1,544.78     | 578.63        | 1,608.04                    | 0.00                        | 0.00                       | 0.00                      |
| 10,500.00                 | 92.24              | 180.00         | 8,890.22                  | -1,644.70     | 578.63        | 1,707.08                    | 0.00                        | 0.00                       | 0.00                      |
| 10,600.00                 | 92.24              | 180.00         | 8,886.31                  | -1,744.63     | 578.63        | 1,806.11                    | 0.00                        | 0.00                       | 0.00                      |
| 10,700.00                 | 92.24              | 180.00         | 8,882.41                  | -1,844.55     | 578.63        | 1,905.15                    | 0.00                        | 0.00                       | 0.00                      |
| 10,800.00                 | 92.24              | 180.00         | 8,878.50                  | -1,944.47     | 578.63        | 2,004.18                    | 0.00                        | 0.00                       | 0.00                      |
| 10,900.00                 | 92.24              | 180.00         | 8,874.59                  | -2,044.40     | 578.63        | 2,103.22                    | 0.00                        | 0.00                       | 0.00                      |
| 11,000.00                 | 92.24              | 180.00         | 8,870.68                  | -2,144.32     | 578.63        | 2,202.25                    | 0.00                        | 0.00                       | 0.00                      |
| 11,100.00                 | 92.24              | 180.00         | 8,866.77                  | -2,244.24     | 578.63        | 2,301.29                    | 0.00                        | 0.00                       | 0.00                      |
| 11,200.00                 | 92.24              | 180.00         | 8,862.86                  | -2,344.17     | 578.63        | 2,400.32                    | 0.00                        | 0.00                       | 0.00                      |
| 11,300.00                 | 92.24              | 180.00         | 8,858.95                  | -2,444.09     | 578.63        | 2,499.36                    | 0.00                        | 0.00                       | 0.00                      |
| 11,400.00                 | 92.24              | 180.00         | 8,855.05                  | -2,544.02     | 578.63        | 2,598.39                    | 0.00                        | 0.00                       | 0.00                      |
| 11,500.00                 | 92.24              | 180.00         | 8,851.14                  | -2,643.94     | 578.63        | 2,697.43                    | 0.00                        | 0.00                       | 0.00                      |
| 11,600.00                 | 92.24              | 180.00         | 8,847.23                  | -2,743.86     | 578.63        | 2,796.46                    | 0.00                        | 0.00                       | 0.00                      |
| 11,700.00                 | 92.24              | 180.00         | 8,843.32                  | -2,843.79     | 578.63        | 2,895.50                    | 0.00                        | 0.00                       | 0.00                      |
| 11,800.00                 | 92.24              | 180.00         | 8,839.41                  | -2,943.71     | 578.63        | 2,994.53                    | 0.00                        | 0.00                       | 0.00                      |
| 11,900.00                 | 92.24              | 180.00         | 8,835.50                  | -3,043.63     | 578.63        | 3,093.57                    | 0.00                        | 0.00                       | 0.00                      |
| 12,000.00                 | 92.24              | 180.00         | 8,831.59                  | -3,143.56     | 578.63        | 3,192.60                    | 0.00                        | 0.00                       | 0.00                      |
| 12,100.00                 | 92.24              | 180.00         | 8,827.69                  | -3,243.48     | 578.63        | 3,291.64                    | 0.00                        | 0.00                       | 0.00                      |
| 12,200.00                 | 92.24              | 180.00         | 8,823.78                  | -3,343.40     | 578.63        | 3,390.67                    | 0.00                        | 0.00                       | 0.00                      |
| 12,300.00                 | 92.24              | 180.00         | 8,819.87                  | -3,443.33     | 578.63        | 3,489.70                    | 0.00                        | 0.00                       | 0.00                      |
| 12,400.00                 | 92.24              | 180.00         | 8,815.96                  | -3,543.25     | 578.63        | 3,588.74                    | 0.00                        | 0.00                       | 0.00                      |
| 12,500.00                 | 92.24              | 180.00         | 8,812.05                  | -3,643.18     | 578.63        | 3,687.77                    | 0.00                        | 0.00                       | 0.00                      |
| 12,600.00                 | 92.24              | 180.00         | 8,808.14                  | -3,743.10     | 578.63        | 3,786.81                    | 0.00                        | 0.00                       | 0.00                      |
| 12,700.00                 | 92.24              | 180.00         | 8,804.23                  | -3,843.02     | 578.63        | 3,885.84                    | 0.00                        | 0.00                       | 0.00                      |

| <b>Design Targets</b>                   |              |                 |             |               |               |                  |                 |                  |                   |
|---|--------------|-----------------|-------------|---------------|---------------|------------------|-----------------|------------------|-------------------|
| Target Name - hit/miss targe - Shape    | et Dip Angle | Dip Dir.<br>(°) | TVD<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Northing<br>(ft) | Easting<br>(ft) | Latitude         | Longitude         |
| PBHL GRACE 3-1 - plan hits targ - Point |              | 0.00            | 8,786.00    | -4,309.20     | 578.63        | 7,250,088.24     | 1,995,075.51    | 40° 12′ 59.243 N | 110° 13' 47.771 W |

578.63

578.63

578.63

578.63

578.63

3,984.88

4,083.91

4.182.95

4,281.98

4,347.88

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

3,942.95

-4,042.87

-4.142.79

-4,242.72

-4,309.20

| Casing Points |                           |                           |    |      |                           |                         |
|---------------|---------------------------|---------------------------|----|------|---------------------------|-------------------------|
|               | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) |    | Name | Casing<br>Diameter<br>(") | Hole<br>Diameter<br>(") |
|               | 9,257.97                  | 8,939.89                  | 7" |      | 7                         | 8-3/4                   |



# Weatherford International Ltd.

**Planning Report** 



Database: Company: Project: GRACE 3-16-3-3WH Site: Well: Wellbore:

EDM 2003.21 Single User Db NEWFIELD EXPLORATION CO. DUCHESNE COUNTY, UT

GRACE 3-16-3-3WH GRACE 3-16-3-3WH

Design: Design #1 **Local Co-ordinate Reference:** 

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Site GRACE 3-16-3-3WH

WELL @ 5407.80ft (PIONEER 68) WELL @ 5407.80ft (PIONEER 68)

Minimum Curvature

| an Annotations |            |            |         |                                   |
|----------------|------------|------------|---------|-----------------------------------|
| Measured       | Vertical   | Local Coor | dinates |                                   |
| Depth          | Depth      | +N/-S      | +E/-W   |                                   |
| (ft)           | (ft)       | (ft)       | (ft)    | Comment                           |
| 8,419.4        | 8,419.42   | 0.00       | 0.00    | Start Build 11.00                 |
| 9,257.9        | 7 8,939.89 | -458.58    | 287.46  | Start DLS 3.00 TFO 89.36          |
| 10,326.49      | 8,897.01   | -1,471.33  | 578.63  | Start 2840.04 hold at 10326.49 MD |
| 13,166.5       | 8,786.00   | -4,309.20  | 578.63  | TD at 13166.54                    |

# AFFIDAVIT OF EASEMENT, RIGHT-OF-WAY AND SURFACE USE AGREEMENT

Christian C. Sizemore personally appeared before me, being duly sworn, deposes and with respect to State of Utah R649-3-34.7 says:

- 1. My name is Christian C. Sizemore. I am a Landman for Newfield Production Company, whose address is 1001 17<sup>th</sup> Street, Suite 2000, Denver, CO 80202 ("Newfield").
- 2. Newfield is the Operator of the proposed Grace 3-16-3-3WH well to be located in the NENW of Section 16, Township 3 South, Range 3 West, Duchesne, County, Utah (the "Drillsite Location"). The surface owner of the Drillsite Location is WAYNE HANBERG and JAN HANBERG, Trustees, under the HANBERG LIVING TRUST, dated October 20, 2011, whose address is HC 64 Box 162, Duchesne, UT 84021 ("Surface Owner").
- 3. Newfield and the Surface Owner have agreed upon an Easement, Right-of-Way and Surface Use Agreement dated January 12, 2012 covering the Drillsite Location and access to the Drillsite Location.

FURTHER AFFIANT SAYETH NOT.

Christian C. Sizemore, Landman

**ACKNOWLEDGEMENT** 

STATE OF COLORADO

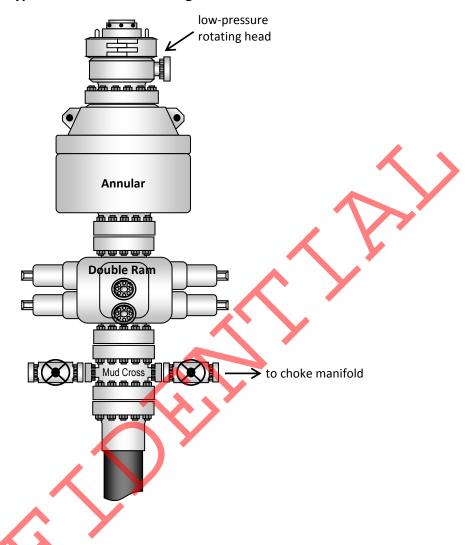
COUNTY OF DENVER §

Before me, a Notary Public, in and for the State, on this 16<sup>th</sup> day of January, 2012, personally appeared Christian C. Sizemore, to me known to be the identical person who executed the foregoing instrument, and acknowledged to me that she executed the same as her own free and voluntary act and deed for the uses and purposes therein set forth.

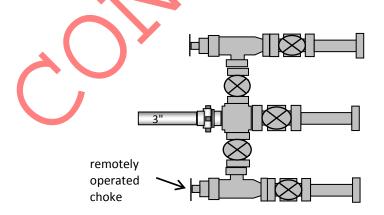
**NOTARY PUBLIC** 

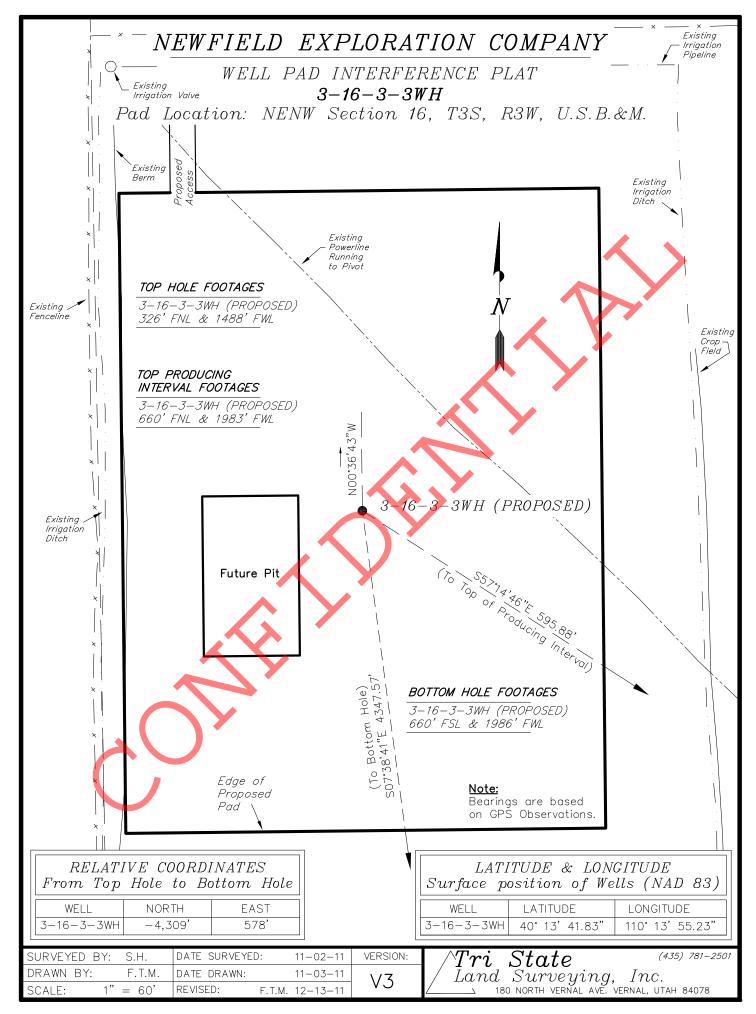
My Commission Expires:

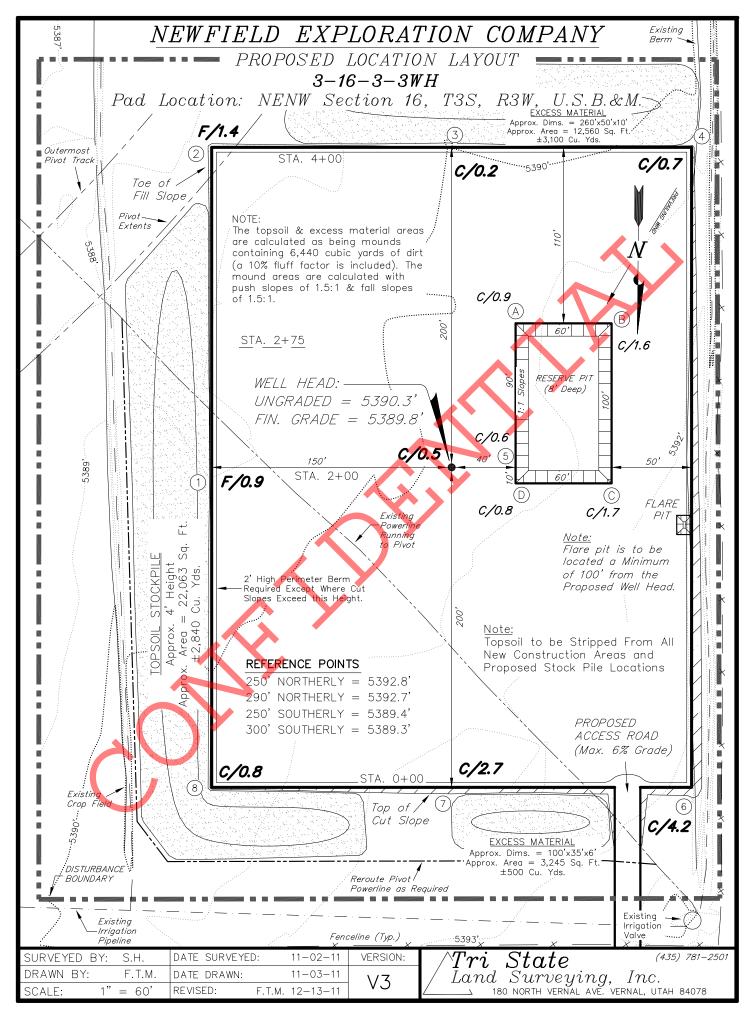
**Typical 5M BOP stack configuration** 

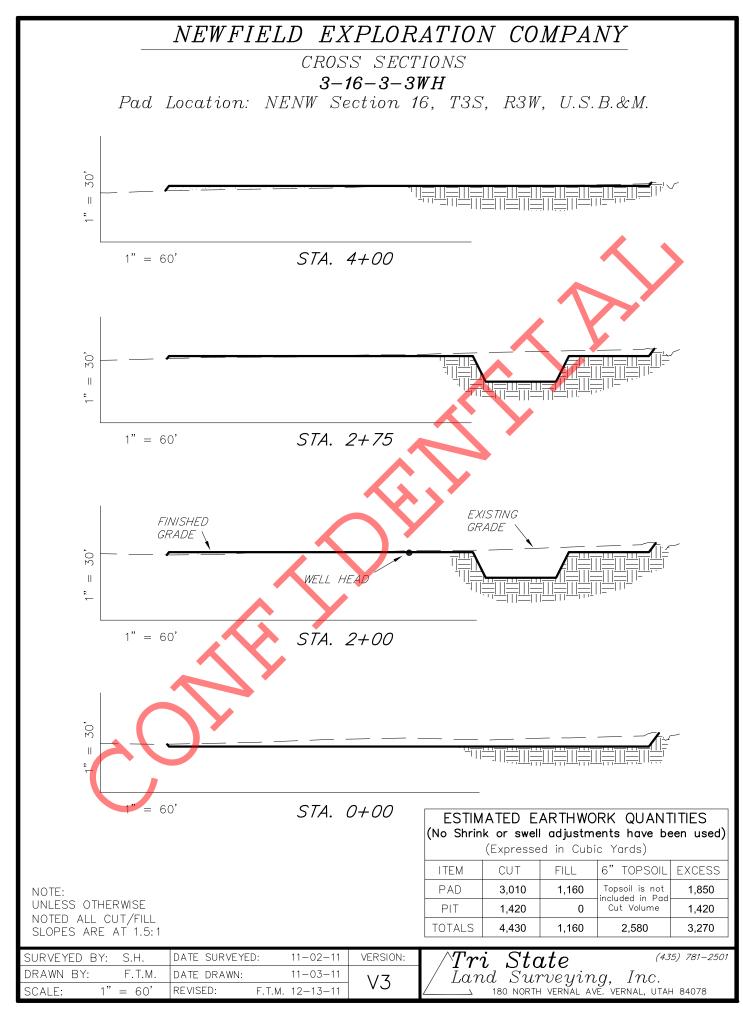


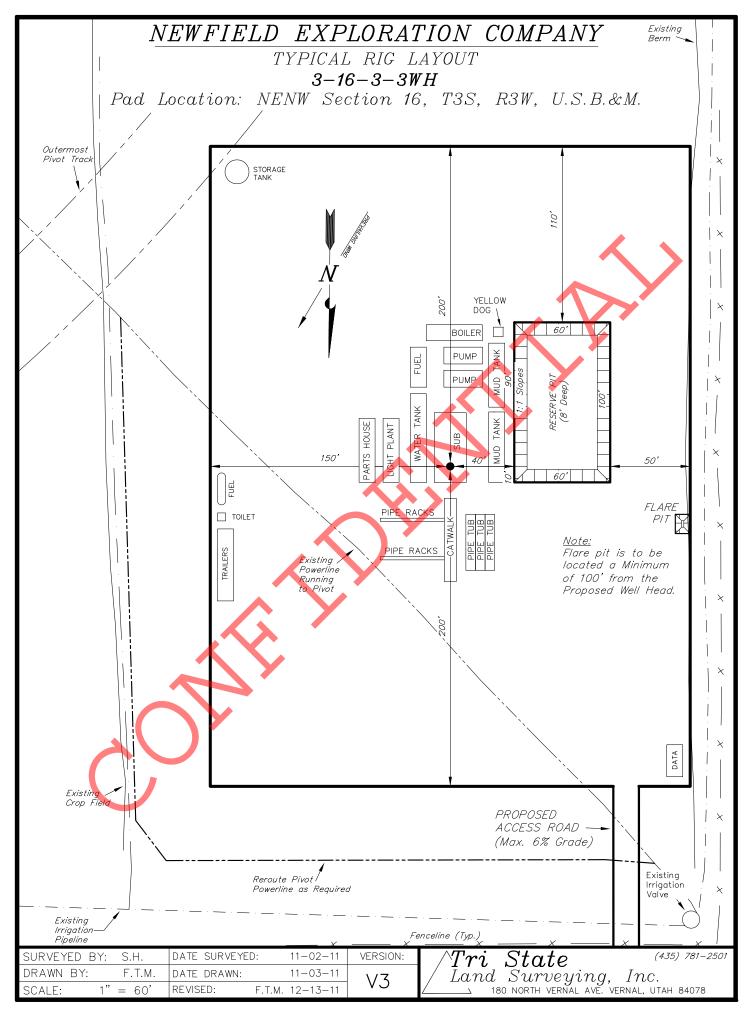
Typical 5M choke manifold configuration

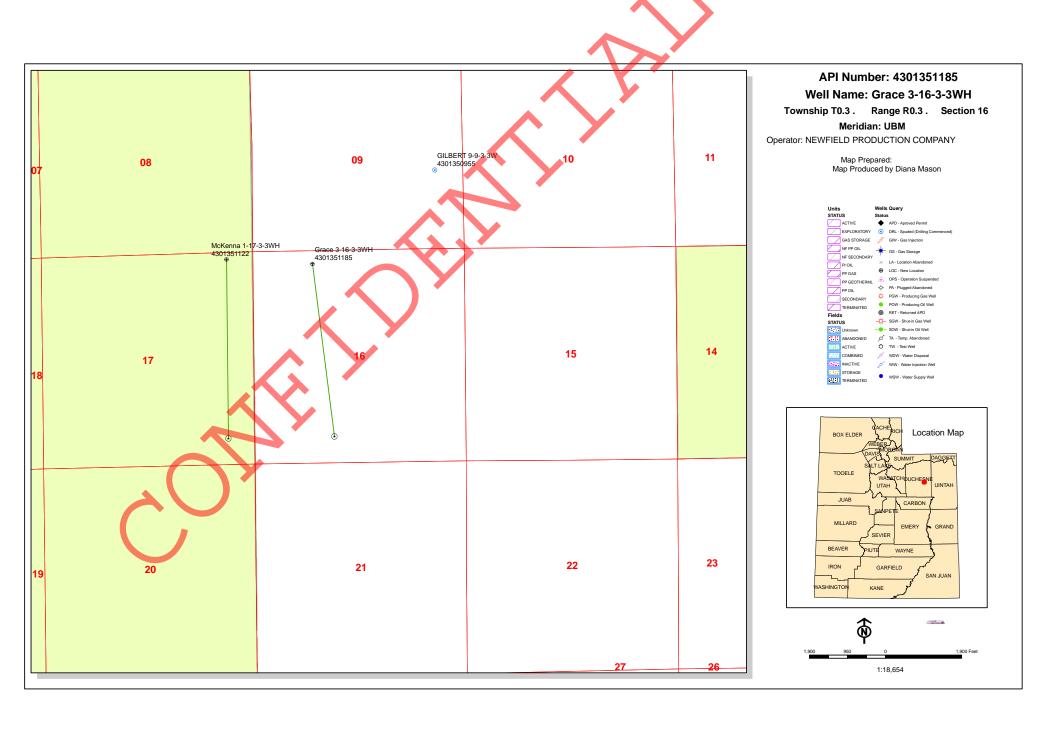








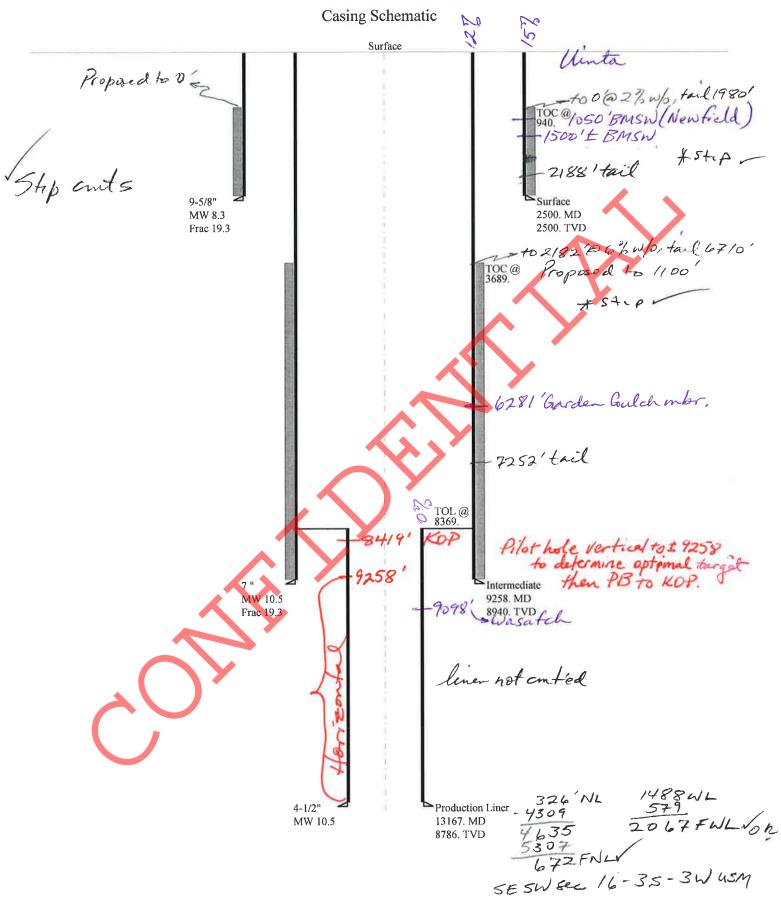




| BOPE REVIEW NI  | EWFIELD PRO     | DUCTION                   | COMPAN       | Y   | Grace 3         | -16-3-3WE      | I 43013511850000  |
|---|-----------------|---------------------------|--------------|-----|-----------------|----------------|---|
| Well Name   |                 | NEWFIELD PRO              | DUCTION COM  | PΑ  | NY Grace 3-16-3 | 3-3WH 43013511 | 85  |
| String  |                 | COND                      | SURF         |     | <u>I1</u>       | PROD           |   |
| Casing Size(")  |                 | 14.000                    | 9.625        |     | 7.000           | 4.500          |   |
| Setting Depth (TVD)   |                 | 60                        | 2500         |     | 8940            | 8786           | <u> </u>  |
| Previous Shoe Setting Dept  | h (TVD)         | 0                         | 60           |     | 2500            | 8940           | <u> </u>  |
| Max Mud Weight (ppg)  |                 | 8.3                       | 8.3          |     | 10.5            | 10.5           | <u> </u>  |
| BOPE Proposed (psi)   |                 | 0                         | 500          |     | 5000            | 5000           |   |
| Casing Internal Yield (psi)   |                 | 1000                      | 3520         |     | 9950            | 12410          |   |
| Operators Max Anticipated   | 4569            |                           |              |     | 10.0            |                |   |
| Calculations  |                 | COND St                   | ring         | _   |                 | 14.000         |   |
| Max BHP (psi)   |                 |                           | )52*Setting  | D   | epth*MW=        | 26             |   |
|   |                 |                           |              | _   |                 |                | BOPE Adequate For Drilling And Setting Casing at Depth? |
| MASP (Gas) (psi)  |                 | Max BH                    | IP-(0.12*Set | ti  | ng Depth)=      | 19             | NO air drill  |
| MASP (Gas/Mud) (psi)  |                 | Max BH                    | P-(0.22*Set  | ti  | ng Depth)=      | 13             | NO  |
|   |                 |                           |              |     |                 |                | *Can Full Expected Pressure Be Held At Previous Shoe?   |
| Pressure At Previous Shoe   |                 | etting Depth              | - Previous S | Sh  | oe Depth)=      | 13             | NO  |
| Required Casing/BOPE Tes  | st Pressure=    |                           |              |     |                 | 60             | psi   |
| *Max Pressure Allowed @   | Previous Casing | Shoe=                     |              |     |                 | 0              | psi *Assumes 1psi/ft frac gradient                      |
| Calculations  |                 | SURF Str                  | ring         | _   |                 | 9.625          |   |
| Max BHP (psi)   |                 |                           | )52*Setting  | D   | epth*MW=        | 1079           |   |
|   |                 |                           |              |     |                 |                | BOPE Adequate For Drilling And Setting Casing at Depth? |
| MASP (Gas) (psi)  |                 | Max BH                    | IP-(0.12*Set | tii | ng Depth)       | 77.9           | NO air drill  |
| MASP (Gas/Mud) (psi)  |                 | Max BH                    | IP-(0.22*Set | tii | ng Depth)=      | 529            | NO Reasonable depth, no expected pressure               |
|   |                 |                           |              |     |                 |                | *Can Full Expected Pressure Be Held At Previous Shoe?   |
| Pressure At Previous Shoe   |                 | etting Depth              | - Previous S | h   | oe Depth)=      | 542            | NO  |
| Required Casing/BOPE Tes  |                 |                           |              |     |                 | 2464           | psi   |
| *Max Pressure Allowed @   | Previous Casing | Shoe=                     |              |     |                 | 60             | psi *Assumes 1psi/ft frac gradient                      |
| Calculations  |                 | I1 Strir                  | ıg           |     | <u> </u>        | 7.000          | "   |
| Max BHP (psi)   |                 | .(                        | )52*Setting  | D   | epth*MW=        | 4881           |   |
|   |                 | $\langle \lambda \rangle$ |              |     |                 |                | BOPE Adequate For Drilling And Setting Casing at Depth? |
| MASP (Gas) (psi)  |                 | Max BH                    | IP-(0.12*Set | ti  | ng Depth)=      | 3808           | YES   |
| MASP (Gas/Mud) (psi)  |                 | Max BH                    | IP-(0.22*Set | ti  | ng Depth)=      | 2914           | YES OK  |
| Pressure At Previous Shoe Max BHP22*(Setting Depth - Previous Shoe Depth) |                 |                           |              |     |                 |                | *Can Full Expected Pressure Be Held At Previous Shoe?   |
|   |                 | etting Depth              | - Previous S | sh  | oe Depth)=      | 3464           | NO Reasonable   |
| Required Casing/BOPE Tes  |                 | g1                        |              | _   |                 | 5000           | psi   |
| Max Pressure Allowed @ Previous Casing Shoe=                              |                 |                           |              |     |                 | 2500           | psi *Assumes 1psi/ft frac gradient                      |

| Calculations                        | PROD String                                      | 4.500 | "   |  |  |
|-------------------------------------|--|-------|---|--|--|
| Max BHP (psi)                       | .052*Setting Depth*MW=                           | 4797  |   |  |  |
|                                     |  |       | BOPE Adequate For Drilling And Setting Casing at Depth? |  |  |
| MASP (Gas) (psi)                    | Max BHP-(0.12*Setting Depth)=                    | 3743  | YES   |  |  |
| MASP (Gas/Mud) (psi)                | Max BHP-(0.22*Setting Depth)=                    | 2864  | YES OK  |  |  |
|                                     |  |       | *Can Full Expected Pressure Be Held At Previous Shoe?   |  |  |
| Pressure At Previous Shoe           | Max BHP22*(Setting Depth - Previous Shoe Depth)= | 4831  | YES OK  |  |  |
| Required Casing/BOPE Test Pressure= |  |       | psi   |  |  |
| *Max Pressure Allowed @             | Previous Casing Shoe=                            | 8940  | psi *Assumes lpsi/ft frac gradient                      |  |  |

# 43013511850000 Grace 3-16-3-3WH



43013511850000 Grace 3-16-3-3WH Well name:

**NEWFIELD PRODUCTION COMPANY** Operator:

String type: Surface Project ID: 4301351185

**DUCHESNE** COUNTY Location:

> **Environment:** Minimum design factors:

> > 1.00

H2S considered? Collapse: No Collapse 74 °F 1.125 Surface temperature: Mud weight: 8.330 ppg Design factor Design is based on evacuated pipe.

Bottom hole temperature: 109 °F Temperature gradient: 1.40 °F/100ft

Cement top:

Minimum section length: 100 ft

**Burst:** Design factor

**Burst** Max anticipated surface

No backup mud specified.

Segment Length

(ft)

Design parameters:

2,200 psi pressure: Internal gradient: 0.120 psi/ft

Size

(in)

Calculated BHP

Tension:

Grade

Nominal

Weight

(lbs/ft)

2,500 psi 8 Round STC: 1.80 (J) 8 Round LTC: 1.70 (J) Buttress: 1.60 (J)

1.50 (J) Premium: Body yield: 1.50 (B)

Tension is based on air weight. Neutral point: 2,192 ft

End

Finish

(ft)

Non-directional string.

Re subsequent strings:

Injection pressure:

Next setting depth: 8,935 ft Next mud weight: 10.500 ppg Next setting BHP: 4,873 psi Fracture mud wt: 19.250 ppg Fracture depth: 2,500 ft

940 ft

2,500 psi

True Vert Measured Drift Est. Depth Depth Diameter Cost (ft) (\$) (in)

| 1          | 2500                  | 9.625                | 36.00              | J-55          | ST&C              | 2500            | 2500            | 8.796               | 21730             |
|------------|-----------------------|----------------------|--------------------|---------------|-------------------|-----------------|-----------------|---------------------|-------------------|
| Run<br>Sea | Collapse<br>Load      | Collapse<br>Strength | Collapse<br>Design | Burst<br>Load | Burst<br>Strength | Burst<br>Design | Tension<br>Load | Tension<br>Strenath | Tension<br>Design |
| Jeq        | (psi)                 | (isq)                | Factor             | (psi)         | (psi)             | Factor          | (kips)          | (kips)              | Factor            |
| 4          | ( <b>psi)</b><br>1082 | 2020                 | 1 867              | 2500          | (psi)<br>3520     | 1 41            | 90              | 394                 | 4 38 J            |

Prepared Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: February 21,2012 Salt Lake City, Utah

Remarks:

Run

Seq

Collapse is based on a vertical depth of 2500 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

43013511850000 Grace 3-16-3-3WH

Operator:

**NEWFIELD PRODUCTION COMPANY** 

String type:

Intermediate

Project ID:

Location:

**DUCHESNE** COUNTY 4301351185

| Design   | parameters: |
|----------|-------------|
| Collanse | a .         |

Mud weight: 10.500 ppg Internal fluid density: 1.000 ppg Minimum design factors:

Collapse: Design factor 1.125 **Environment:** H2S considered?

74 °F Surface temperature: 199 °F Bottom hole temperature: Temperature gradient: 1.40 °F/100ft

Minimum section length: 100 ft

Burst:

Design factor

Cement top:

1.00

1.80 (J)

1.70 (J)

1.60 (J)

1.50 (J)

1.50 (B)

3.689 ft

No

**Burst** 

Max anticipated surface

No backup mud specified:

pressure: 2,910 psi Internal gradient: 0.220 psi/ft Calculated BHP

4,876 psi

Tension: 8 Round STC:

8 Round LTC: Buttress:

Premium: Body yield:

Tension is based on air weight. Neutral point: 7,524 ft Directional well information:

Kick-off point 8419 ft Departure at shoe: 541 ft Maximum dogleg: 11 °/100ft Inclination at shoe: 92.24°

Re subsequent strings:

Next setting depth: 8,940 ft 10.500 ppg Next mud weight: Next setting BHP: 4,876 psi Fracture mud wt: 19.250 ppg Fracture depth: 8,940 ft Injection pressure: 8,940 psi

Measured Drift Est. Run Segment Nominal End True Vert Weight Finish Depth Depth Diameter Cost Seq Length Size Grade (lbs/ft) (ft) (ft) (in) (\$) (ft) (in) 26.00 P-110 8940 9258 102958 1 9258 Buttress 6.151 Burst Collapse **Burst** Burst Tension **Tension Tension** Run Collapse Collapse Strength Strength Design Load Strength Design Load Design Load Sea **Factor** (psi) (psi) Factor (psi) (psi) Factor (kips) (kips) 1 4412 5915 4876 9950 2.04 232.4 830.4 3.57 B .341



Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: February 29,2012 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8940 ft, a mud weight of 10.5 ppg. An internal gradient of .052 psi/ft was used for collapse from TD Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name: 43013511850000 Grace 3-16-3-3WH

Operator: NEWFIELD PRODUCTION COMPANY

String type: Production Liner Project ID: 4301351185

Location: DUCHESNE COUNTY

Design parameters: Minimum design factors: Environment:

CollapseCollapse:H2S considered?NoMud weight:10.500 ppgDesign factor1.125Surface temperature:74 °F

Design is based on evacuated pipe.

Bottom hole temperature: 197 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

<u>Burst:</u>

Design factor 1.00

Burst
Max anticipated surface

pressure: 2,859 psi Internal gradient: 0.220 psi/ft Calculated BHP 4,792 psi

No backup mud specified.

 Tension:

 8 Round STC:
 1.80 (J)

 8 Round LTC:
 1.80 (J)

 Buttress:
 1.60 (J)

 Premium:
 1.50 (J)

1.60 (B)

Body yield:

Tension is based on air weight.

Neutral point: 8,749 ft

Liner top: 8,369 ft

Directional well information:

Kick-off point 8419 ft

Departure at shoe: 4348 ft

Maximum dogleg: 11 °/100ft
Inclination at shoe: 92.24 °

| Run<br>Seq | Segment<br>Length<br>(ft)<br>4767 | Size<br>(in)<br>4.5           | Nominal<br>Weight<br>(lbs/ft)<br>13.50 | Grade<br>P-110         | End<br>Finish<br>Buttress  | True Vert<br>Depth<br>(ft)<br>8786 | Measured<br>Depth<br>(ft)<br>13167 | Drift<br>Diameter<br>(in)<br>3.795 | Est.<br>Cost<br>(\$)<br>28599 |
|------------|-----------------------------------|-------------------------------|--|------------------------|----------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------|
| Run<br>Seq | Collapse<br>Load<br>(psi)         | Collapse<br>Strength<br>(psi) | Collapse<br>Design<br>Factor           | Burst<br>Load<br>(psi) | Burst<br>Strength<br>(psi) | Burst<br>Design<br>Factor          | Tension<br>Load<br>(kips)          | Tension<br>Strength<br>(kips)      | Tension<br>Design<br>Factor   |
| 1          | 4792                              | 10680                         | 2.229                                  | 4826                   | 12410                      | 2.57                               | 5.2                                | 421.9                              | 80.97 B                       |

Prepared Helen Sadik-Macdonald by: Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: February 29,2012 Salt Lake City, Utah

Remarks:

For this liner string, the top is rounded to the nearest 100 ft.Collapse is based on a vertical depth of 8786 ft, a mud weight of 10.5 ppg The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

# **ON-SITE PREDRILL EVALUATION**

# Utah Division of Oil, Gas and Mining

**Operator** NEWFIELD PRODUCTION COMPANY

Well Name Grace 3-16-3-3WH

API Number 43013511850000 APD No 5196 Field/Unit WILDCAT

**Location: 1/4,1/4** NENW **Sec** 16 **Tw** 3.0S **Rng** 3.0W 326 FNL 1488 FWL

GPS Coord (UTM) 565340 4453361 Surface Owner Wayne and Jan Hanberg

# **Participants**

T. Eaton, F. Bird, Z. Mc Intyre- Newfield; C. Jensen, DOGM; W. Hanberg- landowner

# Regional/Local Setting & Topography

The proposed location is situated on fallow farm ground approximately 10 miles west of Hwy 40 and Myton in an area known as Arcadia. Arcadia is bordered by Big sand wash Reservoir 4 miles north and Lake Boreham 4 miles to the south. The area is criss crossed with irrigation canals (and associated ditches and laterals) and is nearby lake fork river and Zimmerman wash. The topography is quite flat and has sandy soils, that are somewhat sodie, conditions giving rise to a high water table typical of the area. Very much of the surrounding lands are used for farming and have seen increasing development for petroleum extraction.

## Surface Use Plan

# **Current Surface Use**

Agricultural

New Road
Miles

Well Pad

Src Const Material Surface Formation

0 Width 300 Length 400 Onsite UNTA

**Ancillary Facilities** 

# Waste Management Plan Adequate?

Y

# **Environmental Parameters**

Affected Floodplains and/or Wetlands N

# Flora / Fauna

Fallow farm ground overgrown with weeds. Particularly russian thistle

Disturbed soils do not support habitat for wildlife.

# Soil Type and Characteristics

clayey sands. Soils are culitivated and sodic.

#### **Erosion Issues** N

# Sedimentation Issues Y

sediment transport is always likely during high precipitation events with sandy soils

Site Stability Issues N

3/5/2012 Page 1

# Drainage Diverson Required? N

Berm Required? N

**Erosion Sedimentation Control Required?** N

Paleo Survey Run? N Paleo Potental Observed? N Cultural Survey Run? N Cultural Resources? N

## Reserve Pit

| Site-Specific Factors             | Site Ranking                       |  |  |  |  |  |
|-----------------------------------|------------------------------------|--|--|--|--|--|
| Distance to Groundwater (feet)    | 20                                 |  |  |  |  |  |
| Distance to Surface Water (feet)  | 20                                 |  |  |  |  |  |
| Dist. Nearest Municipal Well (ft) | 500 to 1320                        |  |  |  |  |  |
| Distance to Other Wells (feet)    | >1320                              |  |  |  |  |  |
| Native Soil Type                  | Mod permeability 10                |  |  |  |  |  |
| Fluid Type                        | Fresh Water 5                      |  |  |  |  |  |
| Drill Cuttings                    | Normal Rock 0                      |  |  |  |  |  |
| Annual Precipitation (inches)     | 10 to 20 5                         |  |  |  |  |  |
| Affected Populations              |                                    |  |  |  |  |  |
| Presence Nearby Utility Conduits  | Unknown 10                         |  |  |  |  |  |
|                                   | Final Score 80 1 Sensitivity Level |  |  |  |  |  |

# Characteristics / Requirements

pit dimensions are planned as 100'x 60' dug to a depth of 8'. Pit is also to be moved to corner # 4

( south western) to accomodate landowner request.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 16 Pit Underlayment Required? N

# Other Observations / Comments

land owner requests that topsoil not be removed and stockpiled. He would like to minimize disturbance area by this measure. He also requested the access road be moved to corner 6. This would conflict with tank farm location and will be placed at corner 7 as staked.

> 2/2/2012 Chris Jensen Evaluator Date / Time

3/5/2012 Page 2

# **Application for Permit to Drill** Statement of Basis

3/5/2012 Utah Division of Oil, Gas and Mining Page 1

APD No API WellNo Status Well Type Surf Owner **CBM** 5196 43013511850000 **LOCKED** OW No Wayne and Jan

Surface Owner-APD NEWFIELD PRODUCTION COMPANY Operator

Hanberg

Well Name Grace 3-16-3-3WH Unit

Field DRILL WILDCAT Type of Work

1488 FWL **NENW** 3S 3W U 326 FNL **GPS** Coord 16 Location

(UTM) 565337E 4453367N

# **Geologic Statement of Basis**

Newfield proposes to set 60' of conductor and 2,500' of surface casing at this location. The base of the moderately saline water at this location is estimated to be at a depth of 1,500'. Air and or fresh water will be used to drill the entire surface hole. A search of Division of Water Rights records shows 15 water wells within a 10,000 foot radius of the center of Section 16. Depth is listed as ranging from 52 to 400 feet. Depths are not listed for 4 wells. Water use is listed as irrigation, stock watering and domestic use. The nearest well is approximately 1/4 mile from the proposed location. This well is listed as 200 feet in depth. The surface formation at this site is the Uinta Formation. Wells in this area likely produce water from either the Uinta Formation or from near surface alluvium. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The surface casing cement should be brought back to ground surface.

> Brad Hill **APD Evaluator**

2/8/2012 Date / Time

# **Surface Statement of Basis**

Operator has surface agreement in place with the landowner. The reserve pit is to be moved to the boundaries of corner 4 and can be reclaimed for center pivot. An electric service cable for the center pivot is buried beneath the foot print of the pad. Operator will reroute this line around the perimeter of the pad as well as set new pole and 2 meters near corner 8. Location is proposed in the best possible position within the spacing window and owners land. This location has been chosen on the far western boundary of the farm and very near the road on the North.

The soil type and topography at present do not combine to pose a significant threat to erosion or sediment/pollution transport in these regional climate conditions. Construction standards of the Operator appear to be adequate for the proposed purpose. I recognize no special flora or animal species or cultural resources on site that the proposed action may harm. The landowner was invited and was in attendance for the pre-site inspection with comments noted above. The location should be bermed to prevent spills from leaving the confines of the pad. Fencing around the reserve pit will be necessary once the well is drilled to prevent wildlife and livestock from entering. A synthetic liner of 16 mils (minimum) should be utilized in the reserve pit.

> Chris Jensen **Onsite Evaluator**

2/2/2012 Date / Time

Conditions of Approval / Application for Permit to Drill

RECEIVED: March 05, 2012

# **Application for Permit to Drill Statement of Basis**

Utah Division of Oil, Gas and Mining

Page 2

| Category | Condition  |
|----------|--|
| Pits     | A synthetic liner with a minimum thickness of 16 mils shall be properly installed and maintained in the reserve pit. |
| Surface  | Top soil is NOT to be stockpiled. Landowner wants pad built on top of soil.  |
| Surface  | The well site shall be bermed to prevent fluids from leaving the pad.  |
| Surface  | The reserve pit shall be fenced upon completion of drilling operations.  |



# **WORKSHEET** APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED: 1/17/2012** API NO. ASSIGNED: 43013511850000

WELL NAME: Grace 3-16-3-3WH

SURFACE: 0326 FNL 1488 FWL

**OPERATOR:** NEWFIELD PRODUCTION COMPANY (N2695) PHONE NUMBER: 435 719-2018

**CONTACT:** Don Hamilton

PROPOSED LOCATION: NENW 16 030S 030W Permit Tech Review:

**Engineering Review:** 

BOTTOM: 0660 FSL 1986 FWL Geology Review:

**COUNTY: DUCHESNE** 

**LATITUDE: 40.22818** LONGITUDE: -110.23201 **UTM SURF EASTINGS: 565337.00** NORTHINGS: 4453367.00

FIELD NAME: WILDCAT

LEASE TYPE: 4 - Fee

**LEASE NUMBER: Patented** PROPOSED PRODUCING FORMATION(S): GREEN RIVER

SURFACE OWNER: 4 - Fee **COALBED METHANE: NO** 

# **RECEIVED AND/OR REVIEWED:** LOCATION AND SITING: ✓ PLAT R649-2-3. Bond: STATE - B001834 Unit: **Potash** R649-3-2. General Oil Shale 190-5 Oil Shale 190-3 R649-3-3. Exception Oil Shale 190-13 **Drilling Unit** Board Cause No: R649-3-2.6 Water Permit: 437478 RDCC Review: 2012-03-02 00:00:00.0 **Effective Date:** Fee Surface Agreement Siting: Intent to Commingle R649-3-11. Directional Drill Commingling Approved

Comments: Presite Completed TEMP 640 ACRE SPACING:

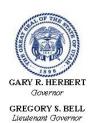
Stipulations: 5 - Statement of Basis - bhill

12 - Cement Volume (3) - hmacdonald

21 - RDCC - dmason

23 - Spacing - dmason 25 - Surface Casing - hmacdonald 26 - Temporary Spacing - bhill

API Well No: 43013511850000



# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

# Permit To Drill

\*\*\*\*\*\*

**Well Name:** Grace 3-16-3-3WH **API Well Number:** 43013511850000

Lease Number: Patented

**Surface Owner:** FEE (PRIVATE) **Approval Date:** 3/5/2012

#### Issued to:

NEWFIELD PRODUCTION COMPANY, Rt 3 Box 3630, Myton, UT 84052

# Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-2.6. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

## **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

# **Conditions of Approval:**

The Application for Permit to Drill has been forwarded to the Resource Development Coordinating Committee for review of this action. The operator will be required to comply with any applicable recommendations resulting from this review. (See attached)

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

API Well No: 43013511850000

A temporary 640 acre spacing unit is hereby established in Section 16, Township 3 S, Range 3 W. USM for the drilling of this well (R649-3-2.6). No other horizontal wells may be drilled in this section unless approved by the Board of Oil, Gas and Mining.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Cement volume for the 7" intermediate string shall be determined from actual hole diameter in order to place cement from the pipe setting depth back to 1000' MD as indicated in the submitted drilling plan.

Surface casing shall be cemented to the surface.

# **Additional Approvals:**

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

# **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

 Within 24 hours following the spudding of the well contact Carol Daniels OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

## **Contact Information:**

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
   Dustin Doucet 801-538-5281 office
  - 801-733-0983 after office hours
- Dan Jarvis 801-538-5338 office
  - 801-231-8956 after office hours

# Reporting Requirements:

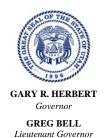
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

API Well No: 43013511850000

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
  - Report of Water Encountered (Form 7) due within 30 days after completion
  - Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas



## State of Utah

#### DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

February 21, 2012

#### Notice to Oil and Gas Operators

Re: Hydraulic Fracturing/FracFocus.org

Although the process of hydraulic fracturing has been a commonly used method for obtaining production from oil and gas wells for many years in Utah and worldwide, this process has become an increasingly controversial issue with the public. Currently there are no conclusive studies that show examples of ground water contamination or public health issues resulting from hydraulic fracturing. However, there is still a great amount of public debate concerning the subject. The Division of Oil, Gas and Mining believes that in order to address some of the public anxiety concerning the process of hydraulic fracturing, it would be beneficial to the petroleum industry in Utah to voluntarily report the chemical content of hydraulic fracturing fluids to the website FracFocus (<a href="https://fracfocus.org">https://fracfocus.org</a>).

FracFocus is the national hydraulic fracturing chemical registry website. This website is a joint project of the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission. The website is both educational and informative and an excellent resource for those seeking information on hydraulic fracturing.

After a hydraulic fracture stimulation is performed, the Division would ask the operator to post on the FracFocus Chemical Disclosure Registry the following stimulation detail:

Fracture date, state, county, API number, operator name, well name, location, production type, true vertical depth, total water volume, and hydraulic fracturing fluid composition as follows:

- (1) Trade name
- (2) Supplier
- (3) Purpose
- (4) Ingredients
- (5) Chemical abstract number
- (6) Maximum ingredient concentration in additive
- (7) Maximum ingredient concentration in hydraulic fracturing fluid



Page 2 Notice to Oil and Gas Operators/Hydraulic Fracturing February 21, 2012

On this website, the public can search for information about the chemicals used in the hydraulic fracturing of oil and gas wells by specific well and location. If you are not familiar with the FracFocus website, the Division encourages you to visit the website to acquaint yourself with the information that is being reported. Other oil and gas producing states have made similar requests or established regulatory requirements concerning hydraulic fracturing and the use of the FracFocus website. The Division strongly believes that through the openness of this request that it will promote the public's trust of the petroleum industry. This will continue to enhance a strong community support for the development of oil and gas, educate the public, and alleviate some of the so-called "mysteries" surrounding hydraulic fracturing. If you have any questions about this request for the voluntary efforts of Utah's petroleum industry, please direct them to John Rogers, Associate Director of Oil and Gas at 801-538-5349, by email at johnrogers@utah.gov.

Sincerely

John R. Baza Director

JRB/jcr/js N:\O&G Reviewed Docs\ChronFile

## BLM - Vernal Field Office - Notification Form

| Operator Newfield Exploration Rig Name/# Pioneer 68 Submitted By Jake Fulcher Phone Number 435-322-0257 Well Name/Number Grace 3-16-3-3WH Qtr/Qtr NENW Section 16 Township 3S Range 3W Lease Serial Number Patented API Number 43-013-51185 |
|---|
| <u>Spud Notice</u> – Spud is the initial spudding of the well, not drilling out below a casing string.  |
| Date/Time <u>3/12/12</u> <u>9:00</u> AM ⊠ PM □  |
| Casing — Please report time casing run starts, not cementing times.  ☐ Surface Casing ☐ Intermediate Casing ☐ Production Casing ☐ Liner ☐ Other   |
| Date/Time <u>3/12/12</u> <u>12:00</u> AM ☐ PM ⊠   |
| BOPE Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test Other  Date/Time AM PM   |
| Remarks   |

NOTE: Use COMMENT section to explain why each Action Code was selected

OPERATOR: NEWFIELD PRODUCTION COMPANY

ADDRESS: RT. 3 BOX 3630

MYTON, UT 84052

OPERATOR ACCT. NO.

| N | 2 | G | 3 | 5 |  |
|---|---|---|---|---|--|
|   |   |   |   |   |  |

| ACTION<br>CODE          | CURRENT<br>ENTITY NO  | NEW  | API NUMBER | WELL NAME                |      | WE    | LL LOCAT | ION       |  | SPUD<br>DATE   | EFFECTIVE<br>DATE |
|-------------------------|---|--|------------|--------------------------|------|-------|----------|-----------|--|----------------|-------------------|
| CODE                    | ENTITY NO   | ENTITY NO.                                     |            |                          | CO   | sc    | 112      | RG        | COUNTY   | DATE           | DATE              |
| A                       | 99999   | 18467  | 4301351185 | GRACE 3-16-3-3WH         | NENW | 16    | 38       | 3W        | DUCHESNE   | 3/12/2012      | 3/2/12            |
| WELL 1 C                | COMMENTS:   |  |            |                          |      |       |          |           | ין   |                |                   |
|                         |   |  |            |                          |      |       |          |           | U  | UM IDLIN       | INL               |
| C                       | IRRV B  |  | enw        |                          | ,    |       |          |           |  |                | T                 |
| CODE                    | CURRENT<br>ENTITY NO.   | NEW<br>ENTITY NO.                              | API NUMBER | WELL NAME                | qq   | SC SC | LL LOCAT | ION<br>RG | COUNTY   | SPUD<br>DATE   | EFFECTIVE<br>DATE |
| 1                       |   |  |            |                          |      |       |          |           |  |                |                   |
| В                       | 99999   | 17400  | 4301350685 | GMBU G-7-9-17            | SWNW | 7     | 95       | 17E       | DUCHESNE   | 3/20/2012      | 3/2/12            |
|                         |   | 1 <del></del>                                  |            |                          |      |       |          |           | <del></del>  |                |                   |
|                         | ~~  |  |            |                          |      |       |          |           |  |                |                   |
| G                       | RRV F   | 3H L: 1  | nenu       |                          |      |       |          |           |  |                |                   |
| ACTION<br>B             | CURRENT<br>ENTITY NO  | NEW<br>ENTITY NO.                              | API NUMBER | WELL NAME                | - 00 | WE.   | LL LOCAT | ION<br>RG | COUNTY   | SPUD<br>DATE   | EFFECTIVE         |
|                         | ENTITIO   |  |            |                          |      | - 55  |          |           |  |                |                   |
| A                       | 99999   | 190400   | 4301350924 | <b>DILLMAN 3-17-3-2W</b> | NENW | 17    | 35       | 2W        | DUCHESNE   | 3/12/2012      | 3/2/12            |
|                         | 33333   | 1 9  | 4501550524 |                          |      | !     |          |           |  | WITH THE       |                   |
|                         | \ <b>~</b> -  |  |            |                          |      |       |          |           | Ĺ  | List III.      | IAL               |
| (                       | SRRV  |  |            |                          |      |       |          |           | •  | <b>4.11.12</b> |                   |
| ACTION                  | CURRENT   | NEW  | API NUMBER | WELL NAME                |      |       | LL LOCAT | ION       | 1 00:00  | SPUD<br>DATE   | EFFECTIVE<br>DATE |
| CODE                    | ENTITY NO   | ENTITY NO                                      |            |                          | 00   | SĊ    | TP       | RG        | COUNTY   | DATE           | DATE              |
| Α                       | 99999   | 104151   | 4301351161 | LH TRUST 3A-30-3-2WSwD   | NENW | 30    | 38       | 2W        | DUCHESNE   | 12/12/2011     | 13112             |
|                         |   |  | 4001001101 | 2111(0010)1000 211,30()  |      |       |          |           | 1  | <u> </u>       |                   |
| ١,,                     | 7C+C  |  |            |                          |      |       |          |           |  | UUIIIII        | , AL              |
| ACTION                  | CURRENT   | NEW  | API NUMBER | WELL NAME                |      |       | LL LOCAT | ION       |  | SPUD           | EFFECTIVE         |
| CODE                    | ENTITY NO   | ENTITY NO                                      |            |                          | QQ   | SC    | TP       | RG        | COUNTY   | DATE           | DATE              |
|                         |   |  | į          |                          |      |       |          |           |  |                | 361112            |
| Α                       | 99999   | 18477  | 4301351044 | MULLINS 11-14-3-2W       | NESW | 14    | 38       | 2W        | DUCHESNE   | 2/1/2012       | 012/112           |
|                         |   |  |            |                          |      |       |          |           | The state of the s | VIICIUL        | 3.1               |
|                         |   |  |            |                          |      |       |          |           | և  | UNTIDEN        | iilL              |
| \                       | <u>ustc</u>   | <del></del>                                    |            |                          |      |       |          |           |  | CRUO           | EFFECTIVE         |
| ACTION<br>CODE          | CURRENT<br>ENTITY NO.   | NEW<br>ENTITY NO.                              | API NUMBER | WELL NAME                | QQ   | SC    | LL LOCAT | RG        | COUNTY   | SPUD<br>DATE   | DATE              |
| JOBE                    | CHITT NO.   | 5  |            |                          |      |       |          |           |  |                |                   |
|                         |   | [  |            |                          |      |       |          |           |  |                |                   |
| ┝                       |   | L  | I          |                          | l    |       |          |           | <u> </u>   |                |                   |
|                         |   |  |            |                          |      |       |          |           | *  |                |                   |
|                         |   |  |            |                          |      |       |          |           | 1  | 1              |                   |
|                         |   |  |            |                          |      |       |          |           | i  |                |                   |
| ACTION C                | ODES (See instructions on bar                                     | ck of form)                                    |            |                          |      |       |          |           | 1 1  | /              |                   |
| A - 1                   | new entity for new well (single                                   | vell anly)                                     |            | RECEIVED                 |      |       |          |           | lan A  | 111            | Jentri Park       |
| A-1<br>B-7              | new entity for new well (single well to existing entity (group or | well anly)<br>unit well)                       |            |                          |      |       |          |           | Signatúre  |                | Jentri Park       |
| A - 1<br>B - 7<br>C - 1 | new entity for new well (single                                   | well anly)<br>unit well)<br>er existing entity |            | RECEIVED<br>MAR 2 1 2012 |      |       |          |           |  | /11            | Jentri Park       |

A COS & Mining

## CONFIDENTIAL

#### STATE OF UTAH

**DEPARTMENT OF NATURAL RESOURCES** 5. LEASE DESIGNATION AND SERIAL NUMBER: DIVISION OF OIL, GAS AND MINING FEE 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: SUNDRY NOTICES AND REPORTS ON WELLS 7. UNIT or CA AGREEMENT NAME: Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged **UINTA CB-BASAL CARB** wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. 8. WELL NAME and NUMBER: OIL WELL GAS WELL OTHER GRACE 3-16-3-3WH 2. NAME OF OPERATOR: 9. API NUMBER: NEWFIELD PRODUCTION COMPANY 4301351185 3. ADDRESS OF OPERATOR: PHONE NUMBER 10. FIELD AND POOL, OR WILDCAT: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052 435.646.3721 UINTA CENTRAL BASIN 4. LOCATION OF WELL: FOOTAGES AT SURFACE COUNTY: DUCHESNE 0326 FNL 1488 FWL OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: NENW, 16, T3S, R3W STATE: UT CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION ACIDIZE DEEPEN REPERFORATE CURRENT FORMATION ■ NOTICE OF INTENT ALTER CASING FRACTURE TREAT (Submit in Duplicate) SIDETRACK TO REPAIR WELL CASING REPAIR NEW CONSTRUCTION TEMPORARITLY ABANDON Approximate date work will CHANGE TO PREVIOUS PLANS OPERATOR CHANGE TUBING REPAIR **CHANGE TUBING** PLUG AND ABANDON VENT OR FLAIR SUBSEQUENT REPORT CHANGE WELL NAME PLUG BACK WATER DISPOSAL (Submit Original Form Only) CHANGE WELL STATUS PRODUCTION (START/STOP) WATER SHUT-OFF Date of Work Completion: COMMINGLE PRODUCING FORMATIONS OTHER: - Spud Notice RECLAMATION OF WELL SITE 03/14/2012 CONVERT WELL TYPE **RECOMPLETE - DIFFERENT FORMATION** 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. On 3/12/12 MIRU Ross #33. Spud well @12:00 PM. Drill 60' of 18" hole with air mist. TIH W/ 2 Jt's 14" H-40 36# csgn. Set @ 78. On 3/14/12 cement with 100 sks of class "G" w/ 2% CaCL2 + 0.25#/sk Cello- Flake Mixed @ 15.8ppg w/ 1.17ft3/sk yield. Returned 10 barrels cement to pit. WOC.

TITLE

04/17/2012

(This space for State use only)

SIGNATURE

NAME (PLEASE PRINT)\_ Branden Arnold

RECEIVED APR 1 9 2012

## Casing / Liner Detail

| Well Grace 3-16-3-3WH |                        |         |      |           | VH                                    |  |                  |   |        |                             |  |
|-----------------------|------------------------|---------|------|-----------|---------------------------------------|--|------------------|---|--------|-----------------------------|--|
| Prospect              |                        | Centr   | al B | asin      |                                       |  |                  |   |        |                             |  |
| Foreman               |                        |         |      |           |                                       |  |                  |   |        |                             |  |
| Run Date.             | :                      |         |      |           |                                       |  |                  |   |        |                             |  |
| String Ty             | pe -                   | Cond    | ucto | or, 14",  | 37#, H                                | I-40, welded   |                  |   |        |                             |  |
|                       | -                      |         |      |           |                                       | - Deta   | il From Top To E | Bottom -                                |        |                             |  |
| De                    | pth                    | Le      | ngth | J         | rs                                    |  | Descr            | iption                                  | OD     | ID                          |  |
|                       |                        |         |      |           |                                       |  |                  |   |        |                             |  |
| 18.                   | .00                    | 60      | 0.00 |           | 2                                     | 60' 14" Conducto   | PF .             |   | 14.000 | 13.500                      |  |
| 78.                   | .00                    |         |      |           |                                       | КВ   | <u> </u>         |   |        |                             |  |
|                       |                        |         |      |           |                                       |  | Cement Detail    |   |        |                             |  |
| ement C               | ompan                  | у: В    | ake  | r Hughe   | es                                    | THE THE STATE OF STAT |                  |   |        | · cancer an arrandom state. |  |
| Slurry                | # of S                 | acks    | Wei  | ght (ppg) | Yield                                 | Volume (ft³)   |                  | Description - Slurry Class and Additive | es     |                             |  |
| Slurry 1              | 10                     | 00      |      | 15.8      | 1.17                                  | 117  | Class "G"2% CaCl |   |        |                             |  |
| tab-In-Jo             | b?                     |         |      |           | No                                    |  |                  | Cement To Surface?                      | Ye     |                             |  |
| HT:                   |                        |         |      |           | 0                                     |  |                  | Est. Top of Cement:                     | 0      | ···········                 |  |
| itial Circu           | ulation F              | Pressur | e:   |           |                                       |  |                  | Plugs Bumped?                           | No.    | <u> </u>                    |  |
|                       |                        |         |      |           |                                       |  |                  | Pressure Plugs Bumped:                  |        |                             |  |
| inal Circu            | tial Circulation Rate: |         |      |           |                                       | Floats Holding?  | No               | )                                       |        |                             |  |
| inal Circu            | lation F               | Rate:   |      |           | · · · · · · · · · · · · · · · · · · · |  |                  | Casing Stuck On / Off Bottom?           | No     | )                           |  |
| isplacem              | ent Flui               | id:     |      | ,         | Water                                 |  |                  | Casing Reciprocated?                    | No     | )                           |  |
| isplacem              | ent Rat                | e:      |      |           |                                       |  | Casing Rotated?  |   |        |                             |  |
| isplacem              | ent Vol                | ume:    |      |           | 8.5                                   |  |                  | CIP:                                    | 12:1   | 3                           |  |
| lud Retur             | ns:                    |         |      |           |                                       |  |                  | Casing Wt Prior To Cement:              |        |                             |  |
| entralizer            | Type A                 | And Pla | cem  | ent:      |                                       |  |                  | Casing Weight Set On Slips:             |        |                             |  |



## DIVISION OF OIL, GAS AND MINING

#### **SPUDDING INFORMATION**

| Name of Cor            | npany;     | NEWFIE     | LD PROD                                      | UCTION C | COMPANY        |   |
|------------------------|------------|------------|--|----------|----------------|---|
| Well Name              |            | GRACE      | 3-16-3-3W                                    | Н        |                |   |
| Api No:                | 43-013-511 | .85I       | ease Type_                                   | FEE      |                | · |
| Section 16             | Township_  | 03S Rang   | ge <u>03W</u>                                | County   | DUCHESNE       |   |
| Drilling Con           | tractor    | PIONEER    |  | RIC      | 6 # <b>#68</b> |   |
| SPUDDE                 |            |            |  |          |                |   |
|                        | Date       | 05/10/2012 | · · · · · · ·                                |          |                |   |
|                        | Time       | 6:00 PM    |  |          |                |   |
|                        | How        | ROTARY     | <u>.                                    </u> |          |                |   |
| Drilling wi<br>Commenc |            |            |  |          |                |   |
| Reported by_           |            | RICHA      | RD McNEI                                     | LL       |                |   |
| Telephone #            |            | (720) 33   | 9-7239 (CE                                   | CLL)     |                |   |
| Date                   | 05/10/2012 | Signed     | CHD  |          |                |   |

## CONFIDENTIAL

#### Carol Daniels - Newfield Grace 3-16-3-3WH 4 1/2" Liner & Rig Move Notice

From: "Pioneer 68" <den pio68@nfxrig.com>

To: "Alexis Heufner" <alexisheufner@utah.gov>, "Carol Daniels" <caroldaniels...

Date: 6/1/2012 5:00 PM

Subject: Newfield Grace 3-16-3-3WH 4 1/2" Liner & Rig Move Notice

"Hans Wychgram" <hwychgram@newfield.com>, "Mitch Benson" <mbenson@newfie... CC:

**Operator:** 

**Newfield Production Company** 

Well Name:

Grace 3-16-3-3WH

Ria:

Pioneer #68

Legals:

326' FNL 1488' FWL Sec. 16-T3S-R3W

**Duchesne County, Utah** 

API#:

43-013-511-85-0000

Contact:

See Below

Est. Run 4 1/2" Liner: 05:30 6/2/2012

Est. Cement:

**No Cement** 

Est. Rig Move:

07:00 6/4/2012

Richard McNeill **Newfield Drilling Supervisor** Pioneer 68 Office 970 361-3263 Cell 720 339-7239 den\_pio68@nfxrig.com

> RECEIVED JUN 0 1 2012

DIV. OF OIL, GAS & MINING

Sundry Number: 30755 API Well Number: 43013511850000

|   | STATE OF UTAH  |  | FORM 9  |
|---|--|--|---|
| ı   | DEPARTMENT OF NATURAL RESOURCE<br>DIVISION OF OIL, GAS, AND MIN  |  | 5.LEASE DESIGNATION AND SERIAL NUMBER: Patented                                       |
| SUNDR   | RY NOTICES AND REPORTS (   | ON WELLS                                     | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME:   |
|   | oposals to drill new wells, significantly of<br>reenter plugged wells, or to drill horizor<br>n for such proposals.      |  | 7.UNIT or CA AGREEMENT NAME:  |
| 1. TYPE OF WELL<br>Oil Well                                       |  |  | 8. WELL NAME and NUMBER:<br>GRACE 3-16-3-3WH  |
| 2. NAME OF OPERATOR:<br>NEWFIELD PRODUCTION CO                    | DMPANY   |  | <b>9. API NUMBER:</b> 43013511850000  |
| 3. ADDRESS OF OPERATOR:<br>Rt 3 Box 3630 , Myton, UT              | , 84052 435 646-4825   | PHONE NUMBER:<br>Ext                         | 9. FIELD and POOL or WILDCAT: WILDCAT   |
| 4. LOCATION OF WELL<br>FOOTAGES AT SURFACE:                       |  |  | COUNTY:<br>DUCHESNE   |
| 0326 FNL 1488 FWL QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NENW Section: | <b>HIP, RANGE, MERIDIAN:</b><br>16 Township: 03.0S Range: 03.0W Meri   | dian: U                                      | STATE:<br>UTAH  |
| 11. CHECI   | K APPROPRIATE BOXES TO INDICAT   | E NATURE OF NOTICE, REPOR                    | RT, OR OTHER DATA   |
| TYPE OF SUBMISSION  |  | TYPE OF ACTION                               |   |
|   | ACIDIZE  | ALTER CASING                                 | CASING REPAIR   |
| NOTICE OF INTENT Approximate date work will start:                | CHANGE TO PREVIOUS PLANS   | CHANGE TUBING                                | CHANGE WELL NAME  |
| Approximate date work will start.                                 | CHANGE WELL STATUS   | COMMINGLE PRODUCING FORMATIONS               | CONVERT WELL TYPE   |
| SUBSEQUENT REPORT Date of Work Completion:                        | DEEPEN   | FRACTURE TREAT                               | ☐ NEW CONSTRUCTION  |
|   | OPERATOR CHANGE  | PLUG AND ABANDON                             | PLUG BACK   |
| SPUD REPORT   | ✓ PRODUCTION START OR RESUME   | RECLAMATION OF WELL SITE                     | RECOMPLETE DIFFERENT FORMATION  |
| Date of Spud:   | REPERFORATE CURRENT FORMATION  | SIDETRACK TO REPAIR WELL                     | TEMPORARY ABANDON   |
|   | TUBING REPAIR  | VENT OR FLARE                                | WATER DISPOSAL  |
| DRILLING REPORT Report Date:                                      | WATER SHUTOFF  | SI TA STATUS EXTENSION                       | APD EXTENSION   |
| 9/6/2012  |  | SI TA STATUS EXTENSION                       |   |
|   | WILDCAT WELL DETERMINATION   | ☐ OTHER                                      | OTHER:  |
| The above well w hours. The above                                 | COMPLETED OPERATIONS. Clearly show a vas placed on production on well was placed on pump or oduction Start Sundry re-ser | 09/06/2012 at 19:00<br>n 09/07/2012 at 08:00 | Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 09, 2012 |
|   |  |  |   |
| NAME (PLEASE PRINT) Kaci Deveraux                                 | <b>PHONE NUMB!</b><br>435 646-4867   | FR TITLE Production Technician               |   |
| SIGNATURE<br>N/A  |  | <b>DATE</b> 10/5/2012                        |   |

Sundry Number: 30755 API Well Number: 43013511850000

|  | STATE OF UTAH   |  | FORM 9   |
|--|---|--|--|
|  | DEPARTMENT OF NATURAL RESOURCE<br>DIVISION OF OIL, GAS, AND MII   |  | 5.LEASE DESIGNATION AND SERIAL NUMBER:<br>Patented |
| SUNDR  | RY NOTICES AND REPORTS  | ON WELLS   | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME:              |
| Do not use this form for pro<br>current bottom-hole depth, i<br>FOR PERMIT TO DRILL form | oposals to drill new wells, significantly<br>reenter plugged wells, or to drill horize<br>n for such proposals. | deepen existing wells below<br>ontal laterals. Use APPLICATION | 7.UNIT or CA AGREEMENT NAME:                       |
| 1. TYPE OF WELL<br>Oil Well  |   |  | 8. WELL NAME and NUMBER:<br>GRACE 3-16-3-3WH       |
| 2. NAME OF OPERATOR:<br>NEWFIELD PRODUCTION CO   | DMPANY  |  | 9. API NUMBER:<br>43013511850000                   |
| 3. ADDRESS OF OPERATOR:<br>Rt 3 Box 3630 , Myton, UT                                     | , 84052 435 646-482   | PHONE NUMBER:<br>25 Ext  | 9. FIELD and POOL or WILDCAT:<br>WILDCAT           |
| 4. LOCATION OF WELL<br>FOOTAGES AT SURFACE:<br>0326 FNL 1488 FWL                         |   |  | COUNTY:<br>DUCHESNE                                |
| QTR/QTR, SECTION, TOWNSI-<br>Qtr/Qtr: NENW Section:                                      | HIP, RANGE, MERIDIAN:<br>16 Township: 03.0S Range: 03.0W Me   | ridian: U  | STATE:<br>UTAH                                     |
| 11. CHEC   | K APPROPRIATE BOXES TO INDICA   | TE NATURE OF NOTICE, REPOR                                     | RT, OR OTHER DATA                                  |
| TYPE OF SUBMISSION   |   | TYPE OF ACTION   |  |
|  | ACIDIZE   | ALTER CASING   | CASING REPAIR                                      |
| NOTICE OF INTENT Approximate date work will start:                                       | CHANGE TO PREVIOUS PLANS  | CHANGE TUBING  | CHANGE WELL NAME                                   |
|  | CHANGE WELL STATUS  | COMMINGLE PRODUCING FORMATIONS                                 | CONVERT WELL TYPE                                  |
| SUBSEQUENT REPORT Date of Work Completion:   | ☐ DEEPEN  | FRACTURE TREAT   | New construction                                   |
|  | OPERATOR CHANGE   | PLUG AND ABANDON   | PLUG BACK  |
| SPUD REPORT  | ✓ PRODUCTION START OR RESUME  | RECLAMATION OF WELL SITE                                       | RECOMPLETE DIFFERENT FORMATION                     |
| Date of Spud:  | REPERFORATE CURRENT FORMATION   | SIDETRACK TO REPAIR WELL                                       | TEMPORARY ABANDON                                  |
|  | TUBING REPAIR   | VENT OR FLARE  | ☐ WATER DISPOSAL                                   |
| DRILLING REPORT Report Date:   | WATER SHUTOFF   | SI TA STATUS EXTENSION   | APD EXTENSION                                      |
| 9/6/2012   | ☐ WILDCAT WELL DETERMINATION  | OTHER  | OTHER:   |
| The above well was   | COMPLETED OPERATIONS. Clearly shows placed on production on 0 09/07/2012 at 08:00 hours                         | )9/06/2012 at 19:00 hour                                       | s. The above well was placed                       |
| NAME (PLEASE PRINT)<br>Kaci Deveraux   | <b>PHONE NUM</b><br>435 646-4867  | BER TITLE Production Technician                                |  |
| SIGNATURE<br>N/A   |   | <b>DATE</b> 10/5/2012  |  |

#### **Daily Activity Report**

# Format For Sundry GRACE 3-16-3-3WH 7/1/2012 To 11/30/2012

7/1/2012 Day: 13

Completion

WWS #5 on 7/1/2012 - Finish LD 4.5" casing. Change rams from 4.5" to 2 3/8". Pressure test rams. PU 2 3/8: work string. - TTS Crossover arrived on location, BHA= (Concave Carbide Mill 3.75 X 1.072 ¿ 2-3/8 PAC)-(Rotary sub 2.88¿OD -1.38¿ID¿ X .75-) - (Dual Circulating Sub 2.88¿OD -.56¿ID¿ X 1.58)-(HYD Disconnect 2.88¿OD -.696¿ID¿ X 2.23)-(TTS Directional Jar 2.88¿OD -1.00¿ID¿ X 5.25)-(Dual Backpressure Valve 2.88¿OD -1.00¿ID¿ X 2.00) (Rotary sub 2.90¿OD -1.38¿ID¿ X 1.16) I Jt 2 3/8 tubing 5.95 P 110 X 30.58 ft. )-(R nipple 1.71¿ X .97) = 15.01 feet - 03:30 ¿ Out of hole with 203 jts of 4.5¿ casing frac string, RDMO Weatherford¿s casing crew and equipment. Change out 4.5¿ casing BOP rams to 2 3/8¿ pipe rams and pressure test 2 3/82 pipe rams to 250 psi low for 5 mins, & 9,500 psi high for 10 mins. Release pressure, Tests charted and in well file. - 06:00 ¿ Turn well over to Day Completion Foreman: George Kartchner. Finish pressure test 2 7/82 tubing rams. Release pressure, Tests charted and in well file. - 08:30 ¿ Spot & RU mixing tank. RU closed loop circulating system. -09:30 - Wait on hydraulic catwalk. PU and assemble TTS BHA assembly. - 12:00 ¿ Catwalk on location. Spot & RU catwalk. Can not raise catwalk. Work on hydraulics. Hydralics fixed. Position catwalk rams. - 13:15 ¿ Safety meeting w/ WWS rig crew, Pure Energy flowback crew & RMT equipment operator. - 15:00 ¿ RIH to 1020.55 ¿ (33 jts plus BHA). Load tubing slick water. Test Supermax Motor. Circulate 10 bbls. SD pump. 13:30 ¿ Unlock & open blind rams. Open manual master valve. RIH w/ TTS BHA & 2 3/8¿ PH6 tubing. - 15:30 ¿ OOH. LD Concave Twister mill, Supermax motor & XRV FR tool. 15:15 ¿ POOH. - Rig crew had rotation Held 2nd Safety meeting with all vendors on Location, Western well Service, Discuss: PPE, Housekeeping, communications, smoking area, muster points, high pressure testing, pinch & crush points, slips trips & falls & suspended loads.--EOT 4037 Ft 130 jts tubing in hole-PU WT 18K, SO WT 16K NEUT WT 16K -will Install 2nd R Nipple at Jt 148 will place it at 4600 feet filling tubing every 1,000 feet, break circulation every 2,000 feet. - EOT 1750 Feet ¿ 55 jts tubing - RIH with BHA and 2 3/8 PH6 5.95 P110 tubing - filling tubing every 1,000 feet, Break circulation every 2,000 feet - 24:00 Continue to POH with 4.52 frac string, - Safety meeting with all vendors on Location, Western well Service, Cudd, Pure energy, TTS Discuss: PPE, Housekeeping, communications, smoking area, muster points, high pressure testing, pinch & crush points, slips trips & falls & suspended loads. - Change over with day Completions Forman ¿On Location for night Shift Willie O Neill 505-860-3326 & Bob Martin 505-320-2658 -18:00 ¿ Turn well over to night shift Completions Foreman: Bob Martin. Cell: 505- 320-2658 15:30 ¿ OOH. LD Concave Twister mill, Supermax motor & XRV FR tool. Wait on bit sub & mill to arrive from Rocksprings.

Daily Cost: \$0

**Cumulative Cost:** \$1,085,334

7/2/2012 Day: 14

Completion

WWS #5 on 7/2/2012 - PU 2 3/8" tubing. D/O 2 kill plugs and 4 frac sleeves. - 6:00 Tag Plug #1 Kill Plug ¿Pull up 5 feet circulate Friction reducer and pipe on pipe -Circulate at 3.5 -2300 psi BBL/Min in and 3.5 BBL/Min out 2100 psi ¿Circulating at 130 RPM /Min 4:00 EOT at Top of Liner 8343 Feet ¿2 Jts above kill plug -total Jts in hole 270 feet-PU WT 48K, SO WT 42K NEUT WT 42K - Circulate at 3.5 BBL/Min in at 2300 psi and 3.5 BBL/Min out at 2300 psi ¿ Torque 1100 ¿ RPM 140 3:00 EOT 7135 Ft 230 jts tubing in hole-PU WT 28K, SO WT 30K NEUT WT 30K - 2nd R Nipple set at Jt 148 at 4600 feet filling tubing every 1,000 feet, break circulation every 2,000 feet. 1140 feet 36 Jts to reach TOL at 8274 Feet. 00:00 EOT 4037 Ft 130 jts tubing in hole-PU WT 18K, SO WT 16K NEUT WT 16K -will Install 2nd R Nipple at Jt 148 will

place it at 4600 feet filling tubing every 1,000 feet, break circulation every 2,000 feet. -Tagged plug at 8540 feet - 5 feet off from wire line -Pulled up 5 feet to circulate - PU WT 48K, SO WT 42K NEUT WT 42K - Safety meeting. - 8:15 Thru plug #1 picking up pipe ¿ 1 hr. to DO Plug ¿Pump 10 BBL gel sweep 7:15 Tag Kill Plug #1 at 8440 feet with 273 jts in Hole start milling on plug ¿ WOB 2800 - 3 bbl. In 3800 psi and 3 bbl. Out at 3000 psi , Torque 1700- 150 RPM ¿ PU weight 38K ¿SO WT-34K neutral WT 36K 6:30 Circulate hole with rig pump could only get 3 BPM at 3000 psi Max, Shut down and bring on Cudd pump 3.5 BPM 3800 Psi in, and 3.5 bbl. Out at 3000 psi - 00:00 ¿ Currently RIH to Tag Plug # 5 Tag sleeve #5. . 23:15 ¿ Thru sleeve #4. D/O time 40 minutes. Pump 10 bbl. sweep, 20 bbl. water, 2- 10 bbl. gell sweeps; 22:35 - Tag sleeve #4. . Tag on joint # 327 (10108¿) D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 1400#. 2.75 bpm @ 3780 psi. Casing ¿ 2900 psi on 20/64¿ choke. BBL in/BBL out. - 12:00 ¿ SD pump. Total of 365 bbls pumped. Large amount of small pieces of plugs returned. Close choke manifold. Bleed down tubing pressure. SI casing pressure ¿ 3100 psi. Hang back swivel. 09:50 ¿ Thru Kill plug #2. Pump 10 bbl gell sweep & follow w/ 320 bbls of water for first clean up cycle. Pumping @ 2.75 bbls w/ 4300 psi & returns @ 3100 psi on 20/64 choke. 09:30 ¿ D/O Kill plug #2 @ 8780¿TM. 3 bpm & 4300 psi & 10K on bit. 09:15 ¿ Kelly hose replaced. Establish circulation w/ Cudd pump truck @ 3 bpm & 4300 psi on joint # 274 (8470¿TM). Returns @ 2800 psi on 22/64 choke. AV- 91.5 ft/min. - 17:15 ¿ Thru sleeve #2. D/O time 12 minutes. Pump 10 bbl sweep, 20 bbls water, 10 bbl gell sweep, pump bottoms up (300 bbls). 17:00 - Tag sleeve #2. D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 1400#. 2.75 bpm @ 4300 psi. Casing ¿ 3100 psi on 21/64¿ choke. BBL in/BBL out. 15:45 ¿ PU tubing w/ swivel. Tag on joint # 309 (9536¿). Wash sand from 9536¿ to 9704¿.15:15 ¿ Thru sleeve #1. 24 minute drill time. Pump 10 bbl gell sweep & follow w/ 40 bbls slick water. 14:45 ¿ Establish circulation W/ Cudd Pumping services @ 2.5 bpm & 4150 psi. SICP & 3100 psi, Open flowback line & maintain 3100 psi on 21/64& choke. Swivel: FS 1000#. String wt. ¿ 49K. SO WT ¿ 48K. PU wt ¿ 51K. Tag & D/O sleeve #1 @ 9522¿. Joint #308. 13:00 ¿ Single up drill line, install new kelly hose. 12:15 ¿ PU tubing to tag 1st frac sleeve. PU 35 jts tubing to 9480¿. Tag depth at jt #308 @ 9522¿. - 21:03 ¿ Thru sleeve #3. D/O time 18 minutes. Pump 10 bbl. Sweep, 20 bbl. Water, 10 bbl. Gell sweep, 20:45 - Tag sleeve #3. Tag on joint # 320 (9910¿)-D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 1400#. 2.5 bpm @ 3839 psi. Casing ¿ 3000 psi on 21/64¿ choke. BBL in/BBL out. 19:30 -Finish pumping clean cycle. Pick up 6 stands filling and circulating to reach sleeve #3 18:00 -On location Switch out with day Supervisor & Currently circulating Bottoms Up 300 bbl. On Location Night Shift Willie O Neill 505-860-3326 - 8:30 Had to shut down and change out Kelly hose, had two small pin holes in Hose

Daily Cost: \$0

**Cumulative Cost:** \$1,118,945

7/3/2012 Day: 15 Completion

WWS #5 on 7/3/2012 - DO Frac Sleeves 5,6,7,8,9,10,11,12, and Circulate Bottoms up - Shut down BHA check valves not holding - 04:28 - Tag sleeve #7. Tag on joint # 345 (10671¿) D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 1400#. 3.5 bpm @ 4200 psi. Casing ¿ 2950 psi on 18/64² choke. BBL in/BBL out. 04:48 ¿ Thru sleeve #7. D/O time 20 minutes. Pump 10 bbl. Sweep, 40 bbl. Water, - 10 bbl. Gell sweep; 05:45 - Tag sleeve #8. Tag on joint # 351 (10856²) D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 1400#. 3.3 bpm @ 4200 psi. Casing ¿ 2880 psi on 17/64² choke. BBL in/BBL out. 05:55 - Thru sleeve #8. D/O time 10 minutes. Pump 10 bbl. sweep, 40 bbl. water, - 10 bbl. gell sweep; 06:15 - Pick up pipe to Tag Sleeve #9 and circulate well - 02:15 - Finish pumping clean cycle.340 BBL btm up- Pick up 7 stands filling and Circ to reach sleeve #6- String wt. ¿ 28K. SO WT ¿ 26K. PU WT ¿ 30K. 03:00 - Tag sleeve #6. . Tag on joint # 339 (10473²) D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 1400#. 3.4 bpm @ 4200 psi. Casing ¿ 2900 psi on 18/64² choke. BBL in/BBL out. 03:15 ¿ Thru sleeve #6. D/O time 15 minutes. Pump 10 bbl. Sweep, 40 bbl. Water, - 10 bbl. Gell sweep; - 00:20 ¿ Tag Plug # 5 Tag sleeve #5 Tag on joint # 332 (10279²) -D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 1400#. 3.4 bpm @ 4200 psi. Casing ¿ 2900

psi on 18/64¿ choke. BBL in/BBL out. 00:43 ¿ Thru sleeve #5. D/O time 23 minutes. Pump 10 bbl. sweep, 40 bbl. Circ Bottoms up 340 bbl. 02:15 - Finish pumping clean cycle. Pick up 6 stands filling and circulating to reach sleeve #6 - 00:00 -getting ready to Pressure test lubricator and RIH with 2nd plug 23:00- Rebuild 2nd plug and changed equalizing Sub to make up difference in prong depth. 22:45-POOH with Plug Bottom did not shear-Had X nipple prong- Should have had N nipple prong 22:30- On depth 4600 Feet with 1.71R tubing Plug DID NOT SET - 21:30 ¿ RIH with Superior WL to set Tubing plug at 4600 feet. 20:00-Crossover arrived ¿ Hook lubricator to WH and Pressure testing with WFD pump 18:00 - Wire Line arrived on location- Waiting on Changeover for Well Head 2 7/8 IF Pin ¿ 2 7/8 Box -16:00 - Call for slickline truck to set ¿R¿ pump through plug in ¿R¿ nipple @ 4600¿ above BHA. Pump clean cycle. 10 bbl gels sweep, 20 bbl spacer, 10 bbl gel sweep, pump 390 bbls (bottoms up) . - 15:45 ¿ SD pump. Release pressure. Full flow to pit. Shut bleedoff & pressure went to 3100 psi on pump. Dual flapper back pressure valve failed. Pump clean cycle. 15:15 ¿ PU tubing to tag sleeve # 13 w/ joint #382 (11812¿). PU wt ¿ 35K, Hang wt ¿ 32K, SO wt ¿ 29K. 14:34 ¿ Thru sleeve #12. D/O time ¿ 27 minutes. Pump 10 bbl gel sweep, 20 bbl fresh water spacer, 10 bbl gel sweep, 20 bbl fresh water spacer. SD pump. Release pressure. 14:00 ¿ Tag sleeve #12 @ 11629¿. Start pump @ 3.2 bpm & 4350 psi. 5K on bit. PU wt ¿ 35K, Hang wt ¿ 32K, SO wt ¿ 29K. Swivel: FS ¿ 1000#, D/O ¿ 1450#. PU wt ¿ 32K, Hang wt ¿ 30K, SO wt ¿ 28K, FCP ¿ 2950 psi. +/- 1% sand. Start mixing pipe on pipe due to torque. 13:15 ¿ SD pump. PU tubing to tag sleeve # 12 @ 11620¿. Wash down each joint. 12:45 ¿ Thru sleeve #11. D/O time- 28 minutes. Pump 10 bbl gel sweep, 20 bbls spacer, 10 bbl gel sweep, 20 bbl spacer. - 12:00 ¿ Tag sleeve #11 on joint #369 (11429¿). Pump: 3.2 bpm @ 4250 psi. Swivel: FS ¿ 1000#, D/O ¿ 1400#. FCP ¿ 2850 psi w/ trace of sand. 4 K on bit. D/O time on sleeve ¿ 24 minutes. 11:20 ¿ SD pump. PU tubing to tag sleeve #11. Wash down each joint. 08:45 ¿ Thru sleeve #10. Sand returns 10%. Pump 10 bbls sweep, 20 bbl spacer, 10 bbl sweep & 350 bbls @ 3 bpm & 4300 psi for bottoms up. 08:20 - Tag on joint #364 @ 11263¿ Establish circulation @ 3 bpm & 4150 psi. Swivel: FS ¿ 1000#. D/O ¿ 1400#. Casing: SICP ¿ 3150 psi. FDP ¿ 2850 psi. 07:35 ¿ SD pump. PU 6 tubing to tag sleeve #10 at 11236¿. Clean sand on each joint. Tag on joint #365 @ 11263¿ Establish circulation @ 3 bpm & 4150 psi. Swivel: FS à 1000#. D/O à 1400#. Casing: SICP à 3150 psi. FDP à 2850 psi. 07:10 à Thru sleeve #9. D/O time -11 minutes. Pump 10 bbl gell sweep, 20 bbls water, 10 bbl gell sweep, 40bbls water. Trace of sand. 07:00 ¿ Tag sleeve #9 w/ joint # 357 (11048¿). Establish circulation w/ Cudd pump truck @ 3 bpm & 4150 psi. D/O sleeve in 10 minutes w/ 4K on bit. Swivel: FS- 1000#, D/O ¿ 1600# FCP ¿ 2800 psi.

Daily Cost: \$0

**Cumulative Cost:** \$1,205,782

7/4/2012 Day: 16

Completion

WWS #5 on 7/4/2012 - RIH and attempt to set Tubing plug - 16:00 ¿ Remove BD hose. RU power swivel. 15:30 ¿ OOH. Unhook lubricator. Check for plug. Plug has been set. Remove SL swedge. Install 1502 X 2¿ swedge & hookup bleedoff line. Bleed down tubing. Circulating plug holding, Perform 30 minute negatibe test, SICP ¿ 3200 psi, RDSL, 15:00 -7000¿ ¿ PU wt ¿ 325#, Neutral wt ¿ 275#, SO ¿ 225#. Tag @ 7224¿ SLM. Set R circulating plug.POOH. 14:20 ¿ RIH w/ 2nd R circulating plug. 14:00 ¿ Change out 2 7/8¿ IF pin x 2 3/8¿ EUE box X-over. PT to 4800 psi. Good test. BD to 3300 psi. 13:00 - Hookup SL lubricator & PT to 4800 psi. Box end of 2 7/8¿ IF pin x 2 3/8¿ EUE box X-over leaking. Change out 2 7/8¿ IF pin x 2 3/8¿ EUE box X-over. - 12:00 ¿ OOH. Plug not set. LD plug & redress. Mic plug & seal assembly. Correct size. Set plug in R nipple on surface. Fit properly. Had to hammer on plug 3-4 times to get it to seat. When dressing plug it is single pinned with a 3/16¿ brass pin. We think when we try to seat the plug we are shearing the pin on the first strike. Install 2nd 3/16¿ shear pin ( double pin) in the plug. 11:30 ¿ POOH. 10:45 ¿ Open well. RIH w/ R circulating plug. RIH @250¿/min. 7000¿ ¿ PU wt ¿ 350#, Neutral ¿ 250#, SO ¿ 1503. Tag R nipple @ 7222¿ SLM. Set plug. 10:15 ¿ Install & PT SL lubricator to 4800 psi. Good test. BD to 3300 psi. - 10:00 ¿ Safety meeting. Discuss: PPE, muster are, smoking area, overhead lifting, working in elevated areas, high pressure & not walking under SL to floor. 08:30 ¿ Slick line on location. Spot & RUSL. Day shift on location. George Kartchner 505-486-0146 - 06:00- waiting on 2nd Superior WL truck to arrive with weigh bars ¿ Should be here at 7 am 03:00 - Circulate tubing clean with fresh Water Down Waiting for weigh Bars from Grand Junction 02:30 - Circulate hole Clean. - 18:00 - Pump 10 bbl gel sweep, 20 bbl spacer, 10 bbl gel sweep, 20 bbl spacer. SD pump 17:55 ¿ Thru sleeve #13. Pump 10 bbl gel sweep, 20 bbl spacer, 10 bbl gel sweep, 20 bbl spacer. SD pump 16:45 - Est. circulation @ 1.7 bpm & 4100 psi. Wash down to sleeve # 13. D/O sleeve #13. PU wt ¿ 34K, Netural wt ¿ 32, SO ¿ 30K. Swivel: FS ¿ 1000#, D/O ¿ 1250#. 16:30 ¿ Est. circulation @ 1.7 bpm & 4100 psi. SD pump. Release pressure & check for flow. No flow. Circulating plug holding. 16:15 ¿ Safety meeting. - 02:30 ¿ Currently Down can't get plug set in tubing 02:15- Calling pro wire line & Don Kauppi WL to see if they Have tools or Truck Available. 02:00 - out of hole with plug ¿ top shear set went off, bottom set shear did not shear off. Superior WL does not have any other tools ¿ Can get plug to set on surface but not down hole 00:50 - on depth 7195 feet ¿ WH 3800 Psi ¿ made several attempts to set could not get plug set 00:00 - RIH with 2nd plug - 22:00 ¿ Circulating hole with Gel sweeps -RIH with pipe Circulate hole and Get ready to Tag #15 21:54 -Thru sleeve #14. D/O time 100 minutes. Pump 10 bbl. sweep, 40 bbl. water, - 10 bbl. gell sweep. PU WT ¿34K, Hang WT: 32K, SO WT: 32K.FCP: 2950 psi. +/- 1% sand. Increase Fr 1.25 -run pipe on pipe 20:14 - Tag sleeve #14. . Tag on joint # 388 (12000¿) D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 1800#. 1.8 bpm @ 4150 psi.Casing¿3000 psi on 18/64¿ choke. BBL in/ 3.25 BBL out, Torque on unit 2700 19:30 ¿Resume DO Frac Sleeves ¿RIH with 6 jts tubing - Install 3rd R Nipple above Jt 284 at 11,874 Feet - 23:48 - Thru sleeve #15. D/O time 60 minutes. Pump 10 bbl. sweep, 40 bbl. water, - 10 bbl. gell sweeps. 22:48 - Tag sleeve #15. Tag on joint # 394 (12142¿) D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 2000#. 1.8 bpm @ 4150 psi.Casing¿3000 psi on 18/64¿ choke. BBL in/ 3.25 BBL out, Torque on unit 2500 22:00 ¿ Circulating hole with Gel sweeps -RIH with pipe Circulate hole and Get ready to Tag #15 -19:00 -New RBS power swivel arrived hook up equipment to well. 1.5 HR down RBS Power Swivel 18:30 -PU tubing. Power swivel will not torque. Max torque 500#. Circulating well while down

Daily Cost: \$0

**Cumulative Cost:** \$1,231,797

7/5/2012 Day: 17 Completion

WWS #5 on 7/5/2012 - DO Frac Sleeves- Circulate Hole -Pull Tubing - pull tubing Plug - 07:00 - Pump Clean Cycle. Pumped 540 bbls slickwater clean cycle & 48 bbls of treated fresh water to flush slickwater out of tubing. - 6:30 - Turn over to Day shift -On location. George Kartchner 505-486-0146 Wash to PBTD @ 13155¿. Tag @ 13158¿TM. 6:10 - Thru sleeve #19. D/O time 36 minutes. Pump 10 bbl. sweep, 40 bbl. water, - 10 bbl. gell sweeps. 5:34 - Tag Last sleeve #19. Tag on joint #419 (12971¿) D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 2500#. 1.7 bpm @ 3950 psi.Casing¿2850 psi on 18/64¿ choke. BBL in/ 3.5 BBL out, -5:34 ¿ Tag Last sleeve #19. Tag on joint # 419 (12971¿) D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 2400#. 1.7 bpm @ 3950 psi.Casing¿2850 psi on 18/64¿ choke. BBL in/ 3.5 BBL out, 4:55 - Thru sleeve #18. D/O time 40 minutes. Pump 10 bbl. sweep, 40 bbl. water, -10 bbl. gell sweeps. 4:15 - Tag sleeve #18. Tag on joint # 413 (12783¿) D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 2350#. 1.7 bpm @ 4100 psi.Casing¿3050 psi on 18/64¿ choke. BBL in/ 3.5 BBL out, No sand clear fluid - 3:45 - Thru sleeve #17. D/O time 50 minutes. Pump 10 bbl. sweep, 40 bbl. water, - 10 bbl. gell sweeps. 2:55 - Tag sleeve #17. Tag on joint # 407 (12591¿) D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 2300#. 1.7 bpm @ 3950 psi.Casing¿2950 psi on 18/64¿ choke. BBL in/ 3.5 BBL out, No sand clear fluid PU WT ¿34K, Hang WT¿32K, SO WT¿ 30K.FCP ¿ 2950 psi. Increase Fr 1.25 -run pipe on pipe 1 gal/ M 1:55 - Thru sleeve #16. D/O time 30 minutes. Pump 10 bbl. sweep, 40 bbl. water, - 10 bbl. gell sweeps. 1:25 - Tag sleeve #16. Tag on joint #401 (123972) D/O sleeve. 4K set on bit. Swivel: FS ¿ 1000# D/O ¿ 2100#. 1.7 bpm @ 3950 psi.Casing¿3100 psi on 18/64¿ choke. BBL in/ 3.25 BBL out, Torque on unit 2500 - Down switching out RBS Power Swivel Engine lost

oil seal blowing out oil RBS 1 Hr. Down - 00:00 ¿ RIH 2nd attempt to set tubing 1.710 Tubing غ Bottom check valve holding ذ Bottom check valve holding ذ pump tubing Volume 30 bbl. 4100 psi SD Bleed off 0 pressure ¿ 00:30 ,Getting ready to RIH with tubing plug to set in R nipple EOT 7501 Feet. - 23:00 ¿ OOH with Plug Both sear pins were sheared and doubled ¿ plug came back to surface 22:30 ¿ Could not get tubing plug to set ¿ current depth EOT 7547 Ft ¿ POOH with plug 22:00 ¿ Pressure test lubricator Equalize ¿Open TIW RIH to set new plug 1 jt above BHA at 7501 feet - 17:45 ¿ Stop LD pipe. Bit @ 8216¿. Laid down 166 jts. Tie back to double fast line. 15:00 ¿ Bit @ 10,867¿. Pulling 4K over pull. Stop POOH. RU Kelly hose & circulate @ 2 bpm & 4000 psi. Pump 50 bbls of slickwater. Pump 18 bbls of treated fresh water. 14:15 ¿ SD pump. RD Kelly hose. POOH laying down 2 3/8: PH6-P110 work string. - 21:00 ¿ WL OOH with Plug WH 3000 psi -load new tubing plug 20:00 ¿ RIH and retrieve tubing plug set at 4600 feet - Latch onto plug at 2935 Feet ¿ POOH 19:30 ¿ WFD pressure test Lubricator - Equalize open WH 3,000 psi 19:00 ¿ Superior WL Rigging up lubricator to well ¿ pressure test 18:35 ¿ POOH laying down 2 3/8: PH6-P110 work string. Total 190 Jts out of hole EOT 7535 feet. 18:00 ¿ On location safety meeting with, Cudd, Western Well service, TTS, Pure, Superior WL.

Daily Cost: \$0

**Cumulative Cost:** \$1,288,007

#### 7/6/2012 Day: 18

Completion

WWS #5 on 7/6/2012 - Set Tubing Plug - POOH with Tubing - Rig Up Snubbing unit pull tubing, POOH & LD work string - 01:00 ¿ Plug Set RD WL unit ¿Performed 30 min Negative test - Good Test 00:20 ¿ RIH and set 1.710 Tubing plug in R Nipple-EOT 7501 Ft. - Plug Set 00:00 ¿ RIH 2nd attempt to set tubing 1.710 Tubing plug in R Nipple at EOT 7501 feet. -04:00 - EOT 3865 Ft -125 its in hole -pipe Heavy -Land tubing hanger ¿Rig down Rig Floor. 02:00 - Western Well Service WOR Pull Tubing from 7547 to 3865 Feet -119 Jts tubing 01:00 ¿ After Negative test -Rig down WL unit and get rig ready to pull tubing - 0630 ¿ Cameron OMGB tubing hanger leaking. Release pressure. Pull hanger. Seal missing. Remove hanger. Redress Seaboard Compression style hanger. Remove & redress TWCV. Packed off with sand. Install TWCV. Run Seaboard hanger. Hanger stacked out in BOP stack. Check BOP obstructions. Found chunk of rubber. Back flush BOP stack. Retrieved 2 large pieces of ¿O¿ ring seal. Run hanger. Hanger set. Run in lock down pins & jam nuts. 3 HOURS DOWN TIME TRYING TO LAND TUBING FOR PRESSURE TEST - 14:00 ¿ Pressure test complete. Release pressure. 11:30 ¿ Pressure test BOP stack. Hanger holding. Continue testing. - 18:30 ¿ Turn well over to night shift, Bob Martin 505-320-2658 18:00 ¿ Continue to LD work string. 16:15 ¿ Start snubbing out at 2580¿. 83 joints in hole. 14:30 - POOH laying down 2 3/8¿ PH6 work string. 125 joints remain in hole. 3000 psi on casing - 18:30 - Continue to snub 2 3/8" PH6 tubing from well. Pulled BHA into stack and close manual frac valve, Bleed off pressure from stack and break out and lay down 3.75¿ mill and BHA. All tools recovered. - 19:30 ¿ Rig down Mt. State¿s snubbing unit and standby on location. - 21:30 ¿ MIRU Perforator¿s lubricator, Test 250 psi low, 5,000 psi high, tested good. - 06:00 - Snubbing Unit Rigged Up & Start Pressure testing 04:30 - Rig UP Mountain States Snubbing unit Torque Bolts.

Daily Cost: \$0

**Cumulative Cost:** \$1,394,803

#### 7/7/2012 Day: 19

Completion

WWS #5 on 7/7/2012 - Run production tubing. RD rig. POP well. - 06:00 ¿ Continue to change out 2 3/8 pipe rams with 2 7/8 pipe rams. 04:00 ¿ Change out 2 3/8 pipe rams with 2 7/8 pipe rams and test 250 psi low, 5,000 psi high, test good. - 07:45 ¿ Good test. Release pressure. RD Weatherford pressure tester. 06:30 ¿ Pressure test 2 7/8½ pipe rams to 250 psi low for 5 minutes & 9800 psi high for 15 minutes. 06:00 - Turn well over to Day shift on location. George Kartchner 505-486-0146 - 12:30 ¿ LD 2 jts tubing. PU: 1. 1 ea Tubing Pup

joint 2 7/8¿, 6.5#, EUE, 8rd, L-80; Length ¿ 10¿, OD ¿ 2.875¿, ID ¿ 2.441¿. 2. 1 joint - 2 7/8¿, 6.5#,EUE, 8rd, L-80 Tubing: Length & 32.25&, OD & 2.875&, ID & 2.441& Install tubing hanger. 12:15 ¿ Check string weight: PU wt ¿ 44K, SO wt ¿ 44K, Hang wt ¿ 44K. Tag & latch production packer set @ 8274¿KB. Slack off 10K to 34K. PU to 54K (10K over string weight), confirmed latched to packer. Slack off to 40K & unlatch from packer. 08:00 - Strap & PU 2 7/8¿, P-110, 6.5#, EUE production tubing, RIH as listed: 1, Baker 5 ½ X 2 7/8¿X2,313 ¿L-10¿ on/off tool: Length -1.55¿, OD - 5.5¿, ID - 3.15¿ 2. 1 joint - 2 7/8¿, 6.5#, EUE, 8rd, L-80 Tubing: Length & 32.24&, OD & 2.875&, ID & 2.441& 3. Baker 2 7/8& &X& profile nipple: Length ¿ 0.83¿, OD ¿ 3.785¿, ID ¿ 2.205¿ 4. 257 jts - 2 7/8¿, 6.5#,EUE, 8rd, L-80 Tubing: Length ¿ 4.97¿, OD ¿ 2.875¿, ID ¿ 2.441¿ - 13:45 ¿ Current operation: Displacing hole w/ packer fluid. 12:45 ¿ RU and roll hole w/ 400 bbls of packer fluid consisting of fresh water, Biocide & corrosion inhibitor @ 2 bpm. - 16:45 ¿ SD pump. Pumped 350 bbls of packer fluid consisting of fresh water, Biocide & corrosion inhibitor @ 2.5 bpm. Land tubing. Latch packer & pull to 54K (10K over) to confirm attached to packer. Land tubing w/ Cameron pin activated hanger with 10K compression.Run in all lock down pins & tighten packing nuts. - 18:00 ¿ Continue to pressure test. Turn well over to night shift, James Bruno 817-995-2997 17:15 ¿ LD landing joint. Pressure test hanger to 250 psi low for 5 minutes & 9,900 psi high for 10 minutes. Pressure test casing to 250 psi low for 5 minutes & 5000 spi high for 10 minutes. 17:00 -Land tubing. Latch packer & pull to 54K (10K over) to confirm attached to packer. Land tubing w/ Cameron pin activated hanger with 10K compression. Run in all lock down pins & tighten packing nuts. - 00:00 ¿ RIH gauge ring, to liner top, RIH with Baker 7¿ El Hornet wire line set packer, Set packer at 8,2742, Packer assembly ran as follows: 1. WLEG w/ pump out plug set @ 1500psi 2. Tubing Pup joint 2 7/8¿, 6.5#, EUE, 8rd, L-80: length ¿ 4.14¿, OD ¿ 2.875¿, ID ¿ 2.441¿ 3. Baker 2 7/8¿ ¿XN¿ profile nipple: length ¿ 1.14¿, OD ¿ 2.875¿, ID ¿ 2.205¿ 4. Tubing Pup joint 2 7/8¿, 6.5#, EUE, 8rd, L-80: length ¿ 4.97¿, OD ¿ 2.875¿, ID ¿ 2.441¿ 5. Baker 600-237 10K El Hornet W/L set packer: length ¿ 7.96¿, OD ¿ 6¿, ID ¿ 2.37¿ 6. Baker 27/8¿ ¿X¿ profile nipple: length ¿ 1.25¿, OD ¿ 3.15¿, ID ¿ 2.31¿ POH with setting tool and all setting tools recovered, RDMO Perforatorics. - 00:00 is Continue to ND BOP stack. - 20:00 ¿RDMO WWS rig #5. ND BOP stack 19:00 Finished testing the Hanger and the casing. Both test good. RD down rig.

Daily Cost: \$0

**Cumulative Cost:** \$1,475,882

#### 7/8/2012 Day: 20

Completion

WWS #5 on 7/8/2012 - NU Cameron Production tree & pressure test. Put well on production. - 01:30- Pressured up the well and the pump plug blew at 4500 psi. Pumped 10 bbls flush. Shut in well with 3000 psi on it. Turned well over to production. Final Report - 00:30- Nipple up and test Cameron production tree. Back pressure valve would not hold. Pulled BPV and put in another one. Tested tree to 250 psi low to 10,000 psi high. Good test. Pulled BPV. RU rig pump and tested line to 5000 psi. good test. 00:00  $\grave{c}$  Continue to ND BOP stack.

Daily Cost: \$0

**Cumulative Cost:** \$1,498,869

7/22/2012 Day: 21 Completion

Rigless on 7/22/2012 - Field Cost adjustment in DCR for Non-Captured Costs - WWS TK#2610,2657,2559, Zubiates Inv#1053,1023,1018, Usanco FT#15533,15676,15675,15517, ITL Inv.#721124, ACME TK #4008245, DrillComm Inv.#606489

Daily Cost: \$0

**Cumulative Cost:** \$1,551,409

7/29/2012 Day: 22 Completion

Rigless on 7/29/2012 - Capture final costs in DCR - cost adjustments in DCR for non-captured costs

Daily Cost: \$0

**Cumulative Cost: \$1,558,209** 

#### 8/5/2012 Day: 23

Completion

Rigless on 8/5/2012 - Capture final costs in DCR - cost adjustment in DCR for non-captured costs

**Daily Cost:** \$0

**Cumulative Cost:** \$1,561,729

#### 8/19/2012 Day: 24

Completion

Rigless on 8/19/2012 - Capture final Costs in DCR - Capture final Costs in DCR

Daily Cost: \$0

**Cumulative Cost:** \$1,606,846

#### 8/22/2012 Day: 25

Completion

Rigless on 8/22/2012 - RIH w/Pressure Gradient Survey' - 15:05 ¿ Well head Pressure 250 pressure. RU 1.5½ Jars w/1.923 Guide rig. RU WL Lubricator and pressure test lubricator. 15:10 ¿ Open well head and start in w/Guide rig 15:30 ¿ RIH w/ Jar and guide rig to 8,332½ FS. POOH w/guide rig 15:45 - RD Jars w/guide rig. 16:00 - RU & RIH W/1.5"x 6" Rope Socket, 1- 1.5" x 3' Snack bar w/1.5" Knuckle jiont,1- 1.5" x 3', 1- 1.5" x 3' Snack bar w/1.5" x 2' Shock ass, w/1- 1.5' x 1-1/4" Pressure gradient Surveys log every 500' stops to 8,325' FS. 18:30 - POOH w/Pressure guiges and LD. - 19:00 - RDMO Superior WL - Safety meeting with Superior WL. Discussion on emergency phone numbers, driving on roads, pinch points, PPE and the right to stop work for safety reasons and PPE. Talk about running Pressure gradient surveys logs..

Daily Cost: \$0

**Cumulative Cost:** \$1,611,358

#### 9/2/2012 Day: 26

Completion

Rigless on 9/2/2012 - Enter final costs in DCR - Enter final costs in DCR

Daily Cost: \$0

**Cumulative Cost:** \$1,660,689

#### 9/4/2012 Day: 27

Completion

Nabors #1420 on 9/4/2012 - Spot Equipment on Location and Rig up to well -Remove production Tree and install BOP stack -Pressure Test SWIFN - Location secured ¿ SWIFN - On Location Hold safety Meeting with Nabors Rig Crew 1420 , Discuss PPE ,FRC, Smoking area, Line of fire ,3 point Contact . Pinch crush points, slips trips & falls Muster points, Housekeeping, suspended loads. Tag Lines communications Backing procedures and Spotters, Pressure Concerns, Environmental concerns, Wind Direction, Incident Reporting, Stop Job authority, Potential H2S - Tubing and Casing pressure 0 - Start to Move equipment onto Location ¿ Spot rig and begin rigging up Equipment to Well - Benco install Rig anchor ¿ Spot Rig Pump ¿Flow-back tank waiting on Water and 2nd tank - Tanks spotted, Unload 3 loads of

production water, Tie rig pump to well. - Pump 50 BBL production Water into well on Vacuum ¿ 0 pressure on well. - Install Tubing Check Valve ¿Remove production Tree ¿ Install Bop and Bag , Well Head Installed ,Tested WH donut Had 30 K Compression - Well Head Installed ,Psi test 3 K psi with rig pump Door seals leaking on blind rams could not hold test - replace seals in morning - Pull Tubing Check Valve, Install TIW valve and Night Cap for Night

**Daily Cost:** \$0

**Cumulative Cost:** \$1,673,642

#### 9/5/2012 Day: 28

Completion

Nabors #1420 on 9/5/2012 - Psi test BOP stack - Release on/off tool and TOOH w/ 2-7/8¿ tbg. - Secure location, Well, Waiting on Superior Gas lift Mandrill to get to location -Mandrills arrived in Grand Junction at 2 pm today ¿ Superior are planning to be on location in the 6 Amin Morning -SWIFN - On Location Hold safety Meeting with Nabors Rig Crew 1420 , Discuss PPE ,FRC, Smoking area, Line of fire ,3 point Contact . Pinch crush points, slips trips & falls Muster points, Housekeeping, suspended loads. Tag Lines, communications Backing procedures and Spotters, Pressure Concerns, Environmental concerns, Wind Direction, Incident Reporting, Stop Job authority, Potential H2S - Nabors crew Replace Blind ram Door seals on Nabors BOP get ready for psi test - Well head and casing pressure 0-Pump 50 bbl. Produced water well on Vacuum. - Remove pup joint , TIW install Check Valve , PSI test BOP stack ¿Kill Valves, Blinds, Install Pup Joint test Pipes, Ann Bag, as per NFX Guidelines 250 low 5 min and 4000 psi for 10 Min all tested Good - Remove pup joint, Pull Check Valve ¿back off bolts on Donut- Install pup Joint - Pull 52K rotate ¼ turn left Pull off Baker on off tool and Start TOOH with tubing stand back-Out of hole with 2 7/8 tubing string ¿ X Nipple and Baker On- Off Tool .X Nipple needs replaced as well as 1 joint of tubing tread damage on both ¿.

Daily Cost: \$0

**Cumulative Cost:** \$1,682,467

9/6/2012 Day: 29

Completion

Nabors #1420 on 9/6/2012 - PU gas lift mandrels on 2-7/82 tbg per Superior design and TIH. Latch on/off @ 8,246¿ tool and land tbg w/ 10-15k compression on packer.ND BOPs and NU tree. RDMO WOR. - Pick up Baker On Off tool -1 JT tubing ¿X profile nipple with superior 2.31 Tubing Plug - On Location Hold safety Meeting with Nabors Rig Crew 1420, Superior , Discuss PPE ,FRC, Smoking area, Line of fire ,3 point Contact . Pinch crush points, slips trips & falls Muster points, Housekeeping, suspended loads. Tag Lines, communications Backing procedures, Spotters, Pressure Concerns, Environmental concerns, Wind Direction, Incident Reporting, Stop Job authority, Potential H2S - Plan is to put well on Production 09-07-2012-As per Superior Kick on well 350 - 400 let line out for 12 hrs before start to make adjustments. Location and well head secured - Turn well over to Production - RD Rig and release all vendors off location- Turn well over to Production - Install Check Valve -ND BOPs and NU tree, Weatherford test unit Torque and Pressure test- all Tested Good- remove Check Valve. - String WT 48K - Latch on/off @ 8,246¿ tool and land tbg w/ 10k compression, packer. Tighten pins - Pump 75 BBLS packer fluid down Tubing attempt to circulate -fluid went down hole well on Suck - Rig up Superior Wire Line and RIH 350 FT/Min LT180 Un set tubing Plug out of tubing ¿POOH with plug 350 Ft/Min LT 500-240 - Tag Packer and mark Joint to Space out with on off tool - RIH with 2 7/8 tubing and Superior Gas lift Mandrills RIH 255 Jts tubing and install 7 gas lift mandrills at Depths ¿(Tubing Detail updated on DCR) 2319, 4063,5423,6490,7236,7722,8208 per superior design

Daily Cost: \$0

**Cumulative Cost:** \$1,710,239

9/16/2012 Day: 30

Completion

Nabors #1420 on 9/16/2012 - Capture Final Costs In DCR 9/16/12 - Capture Final Costs In

DCR 9/16/12 **Daily Cost:** \$0

**Cumulative Cost:** \$1,729,899

9/30/2012 Day: 31

Completion

Nabors #1420 on 9/30/2012 - Enter final costs in DCR - Enter final costs in DCR

Daily Cost: \$0

**Cumulative Cost:** \$1,733,211

**Pertinent Files: Go to File List** 

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
ENTITY ACTION FORM -FORM 6

OPERATOR: NEWFIELD PRODUCTION COMPANY
ADDRESS: RT. 3 BOX 3630
MYTON, UT 84052

OPERATOR ACCT. NO.

**Production Clerk** 

N2695

Tasha Robison

11/08/12

| CTION     | CURRENT               | NEW               | API NUMBER | WELL NAME               |         | WE       | LL LOCAT | ION  |          | SPUD                         | EFFECTIVE                               |
|-----------|-----------------------|-------------------|------------|-------------------------|---------|----------|----------|------|----------|------------------------------|---|
| CODE      | ENTITY NO.            | ENTITY NO.        |            |                         | 00      | SC       | TP       | RG   | COUNTY   | DATE                         | DATE                                    |
| E         | 18332                 | 18332             | 4301350923 | LAMB 9-24-3-2           | NESE    | 24       | 35       | 2W   | DUCHESNE | AANMIO                       | 3129/12                                 |
| ~ ~       | _                     |                   | CHANGE     | FROM WSMVD FORMATION    | TO WSTC | •        |          |      | ·····    | T'                           | •                                       |
|           | -ws 1                 | BHL: no           | ese        |                         |         |          | 1        | 1110 | 1/12     | Udili in.                    | - B - B - B - B - B - B - B - B - B - B |
| CTION     | CURRENT               | NEW               | API NUMBER | WELL NAME               |         | ~        | LL LOCAT |      |          | SPUD                         | EFFECTIVE                               |
| В         | ENTITY NO.            | ENTITY NO.        |            |                         | QQ      | sc       | ΤP       | RG   | COUNTY   | DATE                         |   |
| E         | 18467                 | 18467             | 4301351185 | <b>GRACE 3-16-3-3WH</b> | NENW    | 16       | 38       | 3W   | DUCHESNE | <b>A.S</b> . H.I.CH.K.SA. TO | 9/6/12                                  |
| _         |                       |                   | CHANGE     | FROM GRRV FORMATION 7   | TO WSTC | <b>-</b> |          |      |          |                              |   |
| <u> 8</u> | HL: Sesu              | <u> </u>          |            |                         | ·       |          |          | 11   | 19112    | U Unit in L                  |   |
| ODE       | CURRENT<br>ENTITY NO. | NEW<br>ENTITY NO. | API NUMBER | WELL NAME               |         |          | LL LOCAT | ION  | *        | SPUD                         | EFFECTIVE                               |
| -         | ENTITINO:             | ENTIT NO.         |            |                         | 00      | sc       | TP       | RG   | COUNTY   | DATE                         | DATE                                    |
| E         | 18371<br>————         | 18371             | 4301350985 | YERGENSEN 7-7-3-1W      | SWNE    | 7        | 38       | 1W   | DUCHESNE | 12/28/2011                   | 313/12                                  |
|           |                       |                   | CHA        | ANGED FROM WSTC TO GR   | -WS     |          |          |      | 1/9/2012 | U III IL                     | - 1                                     |

A - Establish new entity for new well (single well only)

B - Add new well to existing entity (group or unit well)

C - Re-assign well from one existing entity to another existing entity

D - Re-assign well from one existing entity to a new entity

E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

RECEIVED NOV 0 8 2012

Div. of Oil, Gas & Mining

## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

| CO | TO MAR R DY ED<br>10 M |
|----|------------------------|
|    | 5. Lease Serial No.    |

#### WELL COMPLETION OR RECOMPLETION REPORT AND LOG

|                          |                            |                  |                |                    |                     | •               |              |            |                      |              |                     |                   |                   | PAT      | ENTE              | D                          |               |           |
|--------------------------|----------------------------|------------------|----------------|--------------------|---------------------|-----------------|--------------|------------|----------------------|--------------|---------------------|-------------------|-------------------|----------|-------------------|----------------------------|---------------|-----------|
| la. Type of b. Type of c | Well<br>Completion:        | ✓ Oil<br>✓ Nev   | Well<br>w Well | G:<br>W            | as Well<br>ork Over | Dry Deepen      | Othe<br>Plug | er<br>Back | ☐ Diff               | Resvr.       | •                   |                   |                   | 6. If    | Indian,           | Allottee or 7              | Tribe Name    |           |
|                          |                            | Oth              |                |                    |                     |                 |              | _          |                      |              | ,                   |                   |                   | 7. U     | nit or C          | A Agreemen                 | t Name and No | ).        |
| 2. Name of NEWFIELD      | Operator<br>D EXPLOR       | RATION           | COMP           | ANY                |                     |                 |              |            |                      |              |                     |                   |                   |          |                   | me and Well<br>16-3-3WH    | No.           |           |
| 3. Address               | 1401 17TH S                | T. SUITE 1       | 1000 DEN       | VER, C             | O 80202             |                 |              |            | Phone N<br>35) 646   |              | ude are             | a code)           |                   |          | FI Well<br>113-51 |                            |               |           |
|                          |                            | port loca        | tion clea      | rlv and            |                     | ance with Feder | ral requ     |            |                      | <u> </u>     |                     | 1                 |                   | 10. F    | ield an           | d Pool or Ex               | ploratory     |           |
| At surface               | e 326' FNI                 | L & 1488         | FWL<br>3' FFL  | EN                 | Ω\SEC. 1            | 16, T3S, R3W    | ,            |            |                      |              |                     |                   |                   |          | DCAT<br>Sec., T., | R., M., on E               | Block and     |           |
|                          | 525                        |                  | /              | -0 100             | Q. 0                | , ,             | •            |            |                      |              |                     |                   |                   | S        | Survey o          | or Aron                    | 16, T3S, R6W  |           |
| At top pro               | d. interval r              | eported be       | elow 88        | 8' FNI             | L & 1833'           | FWL (NE/NV      | V) SE        | C. 16, 1   | Г3S, R3              | W            |                     |                   |                   | 12. (    | County            | or Parish                  | 13. State     |           |
| At total de              |                            | -SL & 22         | FW             | L (SE              | /SW) SE             | C. 16, T3S, R   | 3W <b>T</b>  | 3HL V      | ev H                 | БМ           |                     |                   |                   | DUC      | CHESN             | 1E                         | UT            |           |
| 14. Date Sp<br>03/12/201 |                            | _                |                | Date T.1<br>03/201 | D. Reached          | i               |              | 16. Da     | te Comp              |              | 7/08/2<br>Ready to  |                   |                   |          |                   | ns (DF, RK<br>18' KB       | B, RT, GL)*   |           |
| 18. Total De             | epth: MD                   | 13230<br>9 8863' |                |                    |                     | g Back T.D.:    |              | 13109'     | *                    |              |                     |                   | dge Plug          | Set:     | MD                | TO RE                      | _             |           |
| 21. Type El              |                            |                  | nical Logs     | Run (              | Submit cop          | y of each)      | עעו          | 486al      | 1                    |              | l                   | as well           |                   | Z N      |                   | Yes (Submi                 | . ,           |           |
|                          |                            |                  |                |                    |                     | EUTRON,GR,      | CALI         | PER, CI    | MT BOI               | ND           |                     | as DST<br>rection | run?<br>al Survey |          |                   | Yes (Submir<br>Yes (Submir |               |           |
| 23. Casing               | 1                          |                  |                |                    |                     |                 |              | Stage Cer  | menter               | No           | of Sks.             | &                 | Slurry            | Vol      |                   |                            |               |           |
| Hole Size                | Size/Gra                   |                  | t. (#/ft.)     |                    | p (MD)              | Bottom (MI      | <u> </u>     | Dept       |                      | Туре         | of Cen              | ent               | (BB               |          | Cem               | ent Top*                   | Amount        | Pulled    |
| 17-1/2"<br>12-1/4"       | 14" H-40<br>9-5/8" K       | -                |                | 0                  |                     | 78'<br>2491'    | _            |            |                      |              | LASS<br>RIMLI       | -                 | _                 |          | 3151'             |                            |               |           |
| 8-3/4"                   | 7" P-110                   |                  |                | 0                  |                     | 9432'           | $\dashv$     |            |                      |              | RIMLI               |                   |                   |          | 3131              |                            |               |           |
| 6-1/8"                   | 4-1/2" P                   | -110 13          | .5#            | 8274               | '                   | 13155'          |              |            |                      | 466 P        | RIMLI               | ГЕ                |                   |          |                   |                            |               |           |
|                          |                            |                  |                |                    |                     |                 |              |            |                      | 450 5        | 0/50 P              | OZ                |                   |          |                   |                            |               |           |
| 24. Tubing               | Record                     |                  |                | <u> </u>           |                     |                 | L_           |            |                      | <u> </u>     |                     |                   |                   |          |                   |                            |               |           |
| Size                     | Depth S                    | Set (MD)         |                | er Deptl           | n (MD)              | Size            |              | Depth Set  | (MD)                 | Packer       | Depth (1            | MD)               | Siz               | e        | Dept              | th Set (MD)                | Packer D      | epth (MD) |
| 2-7/8"<br>25. Produci    | EOT@                       |                  | TA @           | 8284'              |                     |                 | 26.          | Perf       | oration I            | Record       |                     |                   | _                 |          |                   | _                          | 1             |           |
|                          | Formation                  |                  |                | To                 | ор                  | Bottom          |              | Perfo      | orated In            |              |                     |                   | ize               | No. F    | Ioles             |                            | Perf. Status  |           |
| A) Wasato                | :h                         |                  | 94             | 429'               |                     | 13157'          | 94           | 429-131    | 157'                 | _            |                     | 16.9"             | sq. in.           | 19       |                   | Ball Drop                  | Sleeve        |           |
| C)                       |                            |                  |                |                    |                     |                 |              |            |                      |              |                     | •                 |                   |          |                   |                            |               |           |
| D)                       |                            |                  |                |                    |                     |                 | _            |            |                      | _            |                     | <del></del>       |                   |          |                   |                            |               |           |
| 27. Acid, F              |                            |                  | ement So       | ueeze,             | etc.                |                 |              |            |                      |              | - 1 T               | 634               | -4                | •        | •                 |                            |               |           |
| 9429-1315                | Depth Inter<br>57'         | vai              | Fr             | ac w/              | 143320 #            | rs 100 mesh     | and 9        | 88460 #    |                      |              | and Typ<br>hite sai |                   |                   | bls of S | lickwa            | ter fluid in 2             | 20 stages     |           |
|                          |                            |                  |                |                    |                     | ****            |              |            |                      |              |                     |                   |                   |          |                   |                            |               | <u></u>   |
|                          |                            |                  |                |                    |                     |                 |              |            |                      |              | •                   |                   |                   |          |                   |                            |               |           |
| 28. Product              | ion - Interva              | al A             |                |                    |                     |                 |              |            |                      |              |                     |                   | -                 |          |                   |                            |               |           |
| Date First<br>Produced   | .,                         | Hours            | Test           |                    | Oil                 | Gas             | Water        |            | Oil Grav<br>Corr. Al |              | Gas                 |                   |                   | uction M | ethod             |                            | <u> </u>      |           |
| 9/6/2012                 | 9/16/12                    | Tested<br>24     | Produ          | CHOIL              | BBL<br>255          | MCF<br>841      | BBL<br>62    |            | Con. Al              | rı           | Gra                 | vity              | GA                | SLIFT    |                   |                            |               |           |
| Choke                    | Tbg. Press.                |                  | 24 Hr.         |                    | Oil                 | Gas             | Water        | r          | Gas/Oil              |              | We                  | Il Statu          |                   |          |                   | <del></del>                |               |           |
| Size                     | Flwg.<br>SI                | Press.           | Rate           |                    | BBL                 | MCF             | BBL          |            | Ratio                |              | PF                  | RODU              | CING              |          |                   |                            |               |           |
| -                        |                            | <u> </u>         |                |                    |                     |                 |              |            | ļ                    |              |                     |                   |                   |          |                   |                            |               |           |
| Date First               | tion - Interv<br>Test Date | val B<br>Hours   | Test           |                    | Oil                 | Gas             | Water        | <br>[      | Oil Grav             | vity         | Gas                 | <u> </u>          | Prod              | uction M | lethod            |                            |               |           |
| Produced                 |                            | Tested           | Produ          | ction              | BBL                 | MCF             | BBL          |            | Corr. Al             |              | Gra                 | vity              |                   |          |                   |                            |               |           |
| Choke                    | Tbg. Press.                | Csq              | 24 Hr          |                    | Oil                 | Gas             | Water        | -          | Gas/Oil              | <del>-</del> | 13/2                | ll Statu          |                   |          | T.                | DECEN                      | IED -         |           |
| Size                     | Flwg.                      | Press,           | Rate           |                    | BBL                 | MCF             | BBL          |            | Ratio                |              | l vv e              | ıı olalu          | •                 |          | 4                 | RECEIV                     |               |           |
|                          | SI                         |                  |                |                    |                     |                 |              |            |                      |              |                     |                   |                   |          | U                 | CT 24                      | 2012          |           |

| Size Flwg. Press. Rate BBL MCF BBL Ratio  28c. Production - Interval D  Date First Test Date Hours Tested Production BBL MCF BBL Corr. API Gravity  Choke Tbg. Press. Csg. 24 Hr. Oil Gas Water Gas/Oil Well Status  | 201 2         |               | 1.0                  |                  |              |                 |                 |              |                     |  |                             |
|--|---------------|---------------|----------------------|------------------|--------------|-----------------|-----------------|--------------|---------------------|--|-----------------------------|
| The lease of Production BBL MCP BBL Corr. APT Stravity    Production   Prog. Pros. See   S |               |               |                      | Tract            | loa          | C               | N37-4-          | 0:1 0:: ':   | <u> </u>            | Duodination 3 feet - 2   |                             |
| Chake They, Press Cag.   Size Press, Rate Bill.   MCF Bill.   Ratio Water Cap/Oil Ratio   Rate Bill.   MCF Bill.   Ratio   Reduction   Red |               | l est Date    |                      |                  |              |                 |                 |              |                     | Production Method  |                             |
| Ball      | riouuced      |               | rested               | roduction        | PDL          | IVICF           | DDL             | Com. API     | Gravity             |  |                             |
| Ball      | Choke         | Tbg. Press.   | Csg.                 | 24 Hr.           | Oil          | Gas             | Water           | Gas/Oil      | Well Status         |  |                             |
| Date First [fort Date   Elous   Cost   Cost  | Size          | Flwg.         |                      |                  |              |                 |                 |              |                     |  |                             |
| Date First [fort Date   Elous   Cost   Cost  |               | <u> </u>      | 122                  |                  |              |                 |                 |              |                     |  |                             |
| Total   Treated   Treate   |               |               |                      | hr               | lo:1         | lo              | har-4           | lon a - n    | <b>6</b>            | D. 1 1 1   |                             |
| Size   Five   Press   Rate   BBL   MCF   BBL   Ratio   | Produced      | 1 est Date    |                      |                  |              |                 |                 |              |                     | Production Method  |                             |
| 30. Summary of Porous Zones (Include Aquifers):  30. Summary of Porous Zones (Include Aquifers):  30. Summary of Porous Zones (Include Aquifers):  31. Formation (Log) Markers  GEOLOGICAL MARKERS  GEOLOGICAL MARKERS  Formation  Top Bostom Descriptions, Contents, etc.  Name Top  Mess. Depth   | Choke<br>Size | Flwg.         |                      |                  |              |                 |                 |              | Well Status         |  |                             |
| Summary of Forcus Zones (Include Aquifers):   Show all important zones of porosity and contents thereof: Cored intervals and all drill-seem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.   Formation   Top  | 29. Dispo     | sition of Gas | s <i>(Solid, u</i> : | sed for fuel, ve | ented, etc., | )               | <u> </u>        |              | ļ                   |  |                             |
| Show all important zones of perosity and contents thereof: Cored intervals and all drill-nem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recovertes.  Formation  Top  Bottom  Descriptions, Contents, etc.  Name  Top  Meas. Depth  Mess. Depth  Mes |               |               |                      |                  |              |                 |                 |              |                     |  |                             |
| including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.  Formation Top Bottom Descriptions, Contents, etc.  Name Top Meas. Depth Mess. Depth Depth Mess. Depth Depth Mess | 30. Summ      | nary of Porc  | ous Zones            | (Include Aqu     | ifers):      | -               |                 |              | 31. Format          | ion (Log) Markers  | ·                           |
| Formation Top Bottom Descriptions, Contents, etc.  Name Meas. Depth  Meas. Depth  GREEN RIVER EPA MARGOANY GENCH TOP B.8  8286'  Wasatch  32. Additional remarks (include plugging procedure):  33. Indicate which items have been attached by placing a check in the appropriate boxes:    Gallectrical/Mechanical Logs (I full set reg'd.)   Geologic Report   DST Report   Directional Survey   | includi       | ing depth int |                      |                  |              |                 |                 |              | GEOLOG              | SICAL MARKERS  |                             |
| Meas. Depth  MassATCH  9429  19157  GREEN RIVER EPA MANGOANY BENCH TOP BLS  Wasatch  32. Additional remarks (include plugging procedure):  33. Indicate which items have been attached by placing a check in the appropriate boxes:    Constant    |               |               |                      |                  |              |                 |                 |              |                     |  | Тор                         |
| 32. Additional remarks (include plugging procedure):  33. Indicate which items have been attached by placing a check in the appropriate boxes:   | For           | mation        | Тор                  | Bottom           |              | Des             | criptions, Cont | ents, etc.   |                     | Name   | Meas. Depth                 |
| 32. Additional remarks (include plugging procedure):  33. Indicate which items have been attached by placing a check in the appropriate boxes:    Blectrical/Mechanical Logs (I full set req'd.)   Geologic Report   DST Report   Directional Survey     Sundry Notice for plugging and cement verification   Core Analysis   Other:  34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*   Name (please and plentifer Peatross   Title   Production Technician   Date   D   D   D   D     Title 18 U.S.C. Sechea-1801 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any  | WASATCH       | I             | 9429'                | 13157'           |              |                 |                 |              |                     |  |                             |
| 32. Additional remarks (include plugging procedure):  33. Indicate which items have been attached by placing a check in the appropriate boxes:    Electrical/Mechanical Logs (I full set req'd)  |               |               |                      |                  |              |                 |                 |              | BLS                 |  | 8286'                       |
| 33. Indicate which items have been attached by placing a check in the appropriate boxes:    Geologic Report  |               |               |                      |                  | İ            |                 |                 |              | wasa                | tch  | 9159                        |
| 33. Indicate which items have been attached by placing a check in the appropriate boxes:    Geologic Report  |               |               |                      |                  |              |                 |                 |              |                     |  |                             |
| 33. Indicate which items have been attached by placing a check in the appropriate boxes:    Geologic Report  |               |               |                      |                  |              |                 |                 |              |                     |  |                             |
| 33. Indicate which items have been attached by placing a check in the appropriate boxes:    Geologic Report  |               |               |                      |                  |              |                 |                 |              |                     |  | •                           |
| 33. Indicate which items have been attached by placing a check in the appropriate boxes:    Geologic Report  |               |               |                      |                  |              |                 |                 |              |                     |  |                             |
| 33. Indicate which items have been attached by placing a check in the appropriate boxes:    Geologic Report  |               |               |                      |                  |              |                 |                 |              |                     |  |                             |
| 33. Indicate which items have been attached by placing a check in the appropriate boxes:    Geologic Report  | 22 4 1 11     |               |                      |                  |              |                 |                 |              |                     |  |                             |
| Electrical/Mechanical Logs (1 full set req'd.)   Geologic Report   DST Report   Directional Survey   | 32. Addi      | tional remar  | ks (include          | e plugging pro   | cedure):     |                 |                 |              |                     |  |                             |
| Electrical/Mechanical Logs (1 full set req'd.)   Geologic Report   DST Report   Directional Survey   |               |               |                      |                  |              |                 |                 |              |                     |  |                             |
| Electrical/Mechanical Logs (1 full set req'd.)   Geologic Report   DST Report   Directional Survey   |               |               |                      |                  |              |                 |                 |              |                     |  |                             |
| Electrical/Mechanical Logs (1 full set req'd.)   Geologic Report   DST Report   Directional Survey   |               |               |                      |                  |              |                 |                 |              |                     |  |                             |
| Electrical/Mechanical Logs (1 full set req'd.)   Geologic Report   DST Report   Directional Survey   |               |               |                      |                  |              |                 |                 |              |                     |  |                             |
| Electrical/Mechanical Logs (1 full set req'd.)   Geologic Report   DST Report   Directional Survey   |               |               |                      |                  |              |                 |                 |              |                     |  |                             |
| Sundry Notice for plugging and cement verification   | 33. Indic     | ate which it  | ems have             | been attached    | by placing   | g a check in th | e appropriate b | oxes:        | <del>,</del>        |  |                             |
| 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*  Name (please prin) Jennifer Peatross  Title Production Technician  Date 10 12 20 2  Title 18 U.S.C. Section 1601 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any   | <del></del>   |               | _                    |                  |              |                 |                 |              |                     | ✓ Directional Survey   |                             |
| Name (please prin) Jennifer Peatross  Signature  Date  Production Technician  Date  Date  Date  Production Technician  Date  D |               | -             |                      |                  |              |                 |                 |              |                     | Constitution of the state of th |                             |
| Signature Date 10 12 20 2  Title 18 U.S.C. Section 1601 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any  |               |               |                      |                  |              | ormation is co  | unpiete and con |              |                     |  | •                           |
| Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any   | 1             | Name (pleas   | e prohiya            | ennier Pea       | ross<br>/    |                 |                 | Title Produc | tion rechnician     | 1  |                             |
|  | 5             | Signature     | YU                   | UZ VD99          | 1            |                 |                 | Date         | 112/201             | ν  |                             |
|  |               |               |                      |                  |              |                 |                 |              | gly and willfully t | o make to any department or agenc  | ey of the United States any |

(Continued on page 3)

(Form 3160-4, page 2)



## **NEWFIELD EXPLORATION CO.**

DUCHESNE COUNTY, UT GRACE 3-16-3-3WH GRACE 3-16-3-3WH

**GRACE 3-16-3-3WH** 

Survey: Survey #1

## **Standard Survey Report**

01 June, 2012 -





Survey Report



Company:

NEWFIELD EXPLORATION CO.

Project:

DUCHESNE COUNTY, UT

Site: Well: GRACE 3-16-3-3WH GRACE 3-16-3-3WH

Wellbore:

GRACE 3-16-3-3WH

Design:

**GRACE 3-16-3-3WH** 

Local Co-ordinate Reference:

Well GRACE 3-16-3-3WH WELL @ 5407.80ft (PIONEER 68)

TVD Reference: MD Reference:

WELL @ 5407.80ft (PIONEER 68)

North Reference:

**Survey Calculation Method:** 

Minimum Curvature

Database:

EDM 2003.21 Single User Db

Project

DUCHESNE COUNTY, UT

Map System: Geo Datum: Map Zone:

US State Plane 1983

North American Datum 1983

Utah Central Zone

System Datum:

Mean Sea Level

Site

**GRACE 3-16-3-3WH** 

Site Position:

Northing:

7,254,388.80ft

Latitude:

40° 13' 41.830 N

From:

Lat/Long

Easting:

1,994,435.85ft

Longitude:

**Position Uncertainty:** 

0.00 ft

Slot Radius:

**Grid Convergence:** 

110° 13' 55.230 W

0.81°

Well

**GRACE 3-16-3-3WH** 

**Well Position** 

+N/-S +E/-W

0.00 ft Northing: 0.00 ft

7,254,388,80 ft

11.34

Latitude:

40° 13' 41.830 N

**Position Uncertainty** 

0.00 ft

Easting: Wellhead Elevation:

5/1/2012

1,994,435.85 ft ft Longitude: **Ground Level:** 

65.87

110° 13' 55.230 W

5,389.80ft

52,204

Wellbore

GRACE 3-16-3-3WH

Magnetics

**Model Name** 

Sample Date

Declination

Dip Angle

Field Strength

(nT)

GRACE 3-16-3-3WH

BGGM2011

Design **Audit Notes:** 

Version:

1.0

Phase:

**ACTUAL** 

Tie On Depth:

0.00

**Vertical Section:** 

Depth From (TVD) (ft)

0.00

+N/-S (ft)

0.00

+E/-W (ft) 0.00

Direction (°)

172.35

Date 6/1/2012

**Survey Program** From (ft)

To (ft)

Survey (Wellbore)

**Tool Name** 

Description

282.00

13,230.00 Survey #1 (GRACE 3-16-3-3WH)

MWD

MWD - Standard

| ırvey                     |                    |                |                           | a and the second | Service and exposure and | race community and a second community and community | na steat na metalia in      | ware that a sales of the a | era na lina di daga in Nagaraga a a |
|---------------------------|--------------------|----------------|---------------------------|------------------|--------------------------|---|-----------------------------|----------------------------|-------------------------------------|
| Measured<br>Depth<br>(ft) | inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft)    | +E/-W<br>(ft)            | Vertical<br>Section<br>(ft)                         | Dogleg<br>Rate<br>(°/100ft) | Bulld<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft)           |
| 0.00                      | 0.00               | 0.00           | 0.00                      | 0.00             | 0.00                     | 0.00  | 0.00                        | 0.00                       | 0.00                                |
| 282.00                    | 0.31               | 236.61         | 282.00                    | -0.42            | -0.64                    | 0.33  | 0.11                        | 0.11                       | 0.00                                |
| 403.00                    | 0.44               | 190.70         | 403.00                    | -1.06            | -1.00                    | 0.91  | 0.26                        | 0.11                       | -37.94                              |
| 494.00                    | 0.85               | 197.60         | 493.99                    | -2.04            | -1.27                    | 1.86  | 0.46                        | 0.45                       | 7.58                                |
| 620.00                    | 1.17               | 205.13         | 619.97                    | -4.10            | -2.09                    | 3.78  | 0.27                        | 0.25                       | 5.98                                |
| 744.00                    | 1.67               | 216.24         | 743.93                    | -6.70            | -3.70                    | 6.15  | 0.46                        | 0.40                       | 8.96                                |
| 868.00                    | 0.07               | 175.02         | 867.91                    | -8.24            | -4.76                    | 7.53  | 1.30                        | -1.29                      | -33.24                              |
| 994.00                    | 0.14               | 47.11          | 993.91                    | -8.21            | -4.64                    | 7.52  | 0.15                        | 0.06                       | -101.52                             |
| 1.119.00                  | 0.28               | 79.59          | 1,118.91                  | -8.05            | -4.23                    | 7.41  | 0.14                        | 0.11                       | 25.98                               |
| 1,245.00                  | 0.29               | 94.37          | 1,244.91                  | -8.02            | -3.61                    | 7.46  | 0.06                        | 0.01                       | 11.73                               |
| 1,369.00                  | 0.31               | 118.32         | 1,368.91                  | -8.20            | -3.00                    | 7.73  | 0.10                        | 0.02                       | 19.31                               |
| 1,493.00                  | 0.40               | 120.13         | 1,492.91                  | -8.58            | -2.33                    | 8.19  | 0.07                        | 0.07                       | 1.46                                |
| 1,618.00                  | 0.53               | 139.92         | 1.617.90                  | -9.24            | -1.58                    | 8,94  | 0.16                        | 0.10                       | 15.83                               |



Survey Report



Company: Project:

NEWFIELD EXPLORATION CO.

DUCHESNE COUNTY, UT

Site: Well: GRACE 3-16-3-3WH GRACE 3-16-3-3WH GRACE 3-16-3-3WH

Wellbore: Design:

GRACE 3-16-3-3WH

Local Co-ordinate Reference: Well GRACE 3-16-3-3WH

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method: Database:

WELL @ 5407.80ft (PIONEER 68)

WELL @ 5407.80ft (PIONEER 68) True

Minimum Curvature

EDM 2003.21 Single User Db

| Measured             |                    |                  | Vertical             |                  | erander d      | Vertical        | Dogleg            | Bulld             | Turn              |
|----------------------|--------------------|------------------|----------------------|------------------|----------------|-----------------|-------------------|-------------------|-------------------|
| Depth<br>(ft)        | inclination<br>(°) | Azimuth<br>(°)   | Depth<br>(ft)        | +N/-S<br>(ft)    | +E/-W<br>(ft)  | Section<br>(ft) | Rate<br>(°/100ft) | Rate<br>(°/100ft) | Rate<br>(°/100ft) |
| 1,742.00<br>1,866.00 | 0.70<br>0.80       | 143.92<br>119.22 | 1,741.90<br>1,865.89 | -10.29<br>-11.32 | -0.77<br>0.44  | 10.09<br>11.28  | 0.14<br>0.27      | 0.14<br>0.08      | 3.23<br>-19.92    |
| 1,991.00             | 0.64               | 78.69            | 1,990.88             | -11.61           | 1.88           | 11.76           | 0.42              | -0.13             | -32.42            |
| 2,115.00             | 0.53               | 84.00            | 2,114.87             | -11.42           | 3.13           | 11.73           | 0.10              | -0.09             | 4.28              |
| 2,240.00<br>2,365.00 | 0.74<br>1.21       | 104.70<br>136.09 | 2,239.86<br>2,364.85 | -11.56<br>-12.72 | 4.49<br>6.18   | 12.06<br>13.43  | 0.25<br>0.56      | 0.17<br>0.38      | 16.56<br>25.11    |
| 2,440.00             | 1.16               | 127.50           | 2,439.83             | -13.75           | 7.33           | 14.60           | 0.25              | -0.07             | -11.45            |
| 2,573.00             | 0.98               | 129.31           | 2,572.81             | -15.29           | 9.28           | 16.39           | 0.14              | -0.14             | 1.36              |
| 2,698.00             | 1.05               | 133.34           | 2,697.79             | -16.75           | 10.94<br>10.77 | 18.06<br>17.27  | 0.08<br>2.14      | 0.06<br>0.50      | 3.22<br>-130.94   |
| 2,825.00<br>2,950.00 | 1.69<br>1.69       | 327.05<br>331.33 | 2,824.77<br>2,949.72 | -15.98<br>-12.82 | 8.88           | 13.88           | 0.10              | 0.50              | -130.94<br>3.42   |
| 3,073.00             | 1.68               | 326.95           | 3,072.66             | -9.71            | 7.03           | 10.56           | 0.10              | -0.01             | -3.56             |
| 3,198.00             | 1.73               | 325.85           | 3,197.61             | -6.62            | 4.97           | 7.22            | 0.05              | 0.04              | -0.88             |
| 3,322.00             | 1.50<br>1.28       | 325.33<br>318.17 | 3,321.56<br>3,445.52 | -3.73<br>-1.36   | 3.00<br>1.15   | 4.10<br>1.51    | 0.19<br>0.23      | -0.19<br>-0.18    | -0.42<br>-5.77    |
| 3,446.00<br>3,570.00 | 1.09               | 298.06           | 3,569.50             | 0.22             | -0.81          | -0.33           | 0.23              | -0.15             | -16.22            |
| 3,694.00             | 0.94               | 286.05           | 3,693.48             | 1.06             | -2.83          | -1.43           | 0.21              | -0.12             | -9.69             |
| 3,819.00             | 1.37               | 278.61           | 3,818.45             | 1.57             | -5.30          | -2.26           | 0.36              | 0.34              | -5.95             |
| 3,943.00<br>4,068.00 | 0.22<br>0.40       | 54.04<br>161.03  | 3,942.44<br>4,067.44 | 1.93<br>1.66     | -6.57<br>-6.23 | -2.78<br>-2.47  | 1.24<br>0.41      | -0.93<br>0.14     | 109.22<br>85.59   |
| 4,193.00             | 0.74               | 187.28           | 4,192.43             | 0.44             | -6.19          | -1.26           | 0.34              | 0.27              | 21.00             |
| 4,317.00             | 1.35               | 186.98           | 4,316.41             | -1.80            | -6.47          | 0.93            | 0.49              | 0.49              | -0.24             |
| 4,442.00             | 1.04               | 168.80           | 4,441.39             | -4.38            | -6.43          | 3.48            | 0.39              | -0.25             | -14.54            |
| 4,567.00<br>4,692.00 | 0.80<br>1.65       | 207.71<br>201.90 | 4,566.37<br>4,691.34 | -6.26<br>-8.70   | -6.62<br>-7.69 | 5.33<br>7.60    | 0.52<br>0.69      | -0.19<br>0.68     | 31.13<br>-4.65    |
| 4,817.00             | 0.28               | 155.12           | 4,816.32             | -10.65           | -8.24          | 9.46            | 1.18              | -1.10             | -37.42            |
| 4,943.00             | 0.91               | 190.59           | 4,942.31             | -11.91           | -8.29          | 10.71           | 0.56              | 0.50              | 28.15             |
| 5,066.00             | 1.09               | 58.73            | 5,065.31             | -12.27           | -7.47          | 11.16           | 1.49              | 0.15              | -107.20           |
| 5,191.00<br>5,316.00 | 0.20<br>0.29       | 103.67<br>36.32  | 5,190.30<br>5,315.30 | -11.70<br>-11.50 | -6.24<br>-5.84 | 10.77<br>10.62  | 0.77<br>0.23      | -0.71<br>0.07     | 35.95<br>-53.88   |
| 5,439.00             | 0.29               | 140.23           | 5,438.30             | -11.56           | -5.40          | 10.74           | 0.43              | 0.07              | 84.48             |
| 5,563.00             | 0.69               | 15.66            | 5,562.29             | -11.16           | -4.93          | 10.40           | 0.77              | 0.25              | -100.46           |
| 5,687.00             | 0.16               | 336.06           | 5,686.29             | -10.28           | -4.80          | 9.55            | 0.46              | -0.43             | -31.94            |
| 5,811.00<br>5,935.00 | 0.51<br>0.16       | 193.58<br>239.41 | 5,810.29<br>5,934.29 | -10.66<br>-11.28 | -5.00<br>-5.28 | 9.90<br>10.48   | 0.52<br>0.33      | 0.28<br>-0.28     | -114.90<br>36.96  |
| 6,059.00             | 0.10               | 1.30             | 6,058.28             | -10.73           | -5.41          | 9.92            | 0.55              | 0.35              | 98.30             |
| 6,184.00             | 0.28               | 286.15           | 6,183.28             | -10.01           | -5.69          | 9.16            | 0.47              | -0.25             | -60.12            |
| 6,309.00             | 0.76               | 230.13           | 6,308.28             | -10.45           | -6.62          |                 | 0.52              | 0.38              | -44.82            |
| 6,433.00<br>6,557.00 | 0.43<br>0.29       | 10.53<br>239.69  | 6,432.27<br>6,556.27 | -10.52<br>-10.22 | -7.17<br>-7.35 | 9.47<br>9.15    | 0.91<br>0.53      | -0.27<br>-0.11    | 113.23<br>-105.52 |
| 6,682.00             | 0.29               | 21.13            | 6,681.27             | -9.67            | -7.35<br>-7.35 |                 | 0.76              | 0.33              | 113.15            |
| 6,806.00             | 0.30               | 135.71           | 6,805.26             | -9.20            | -6.85          | 8.20            | 0.70              | -0.32             | 92.40             |
| 6,931.00             | 0.91               | 174.68           | 6,930.26             | -10.42           | -6.53          |                 | 0.56              | 0.49              | 31.18             |
| 7,055.00             | 1.19               | 117.69           | 7,054.24             | -12.00           | -5.30<br>-3.28 |                 | 0.83<br>0.69      | 0.23<br>0.32      | -45.96<br>25.55   |
| 7,179.00<br>7,303.00 | 1.59<br>1.75       | 149.37<br>137.58 | 7,178.20<br>7,302.15 | -14.08<br>-16.95 | -3.∠o<br>-1.13 |                 | 0.30              | 0.32              | -9.51             |
| 7,427.00             | 0.82               | 141.82           | 7,426.12             | -19.05           | 0.70           |                 | 0.75              | -0.75             | 3.42              |
| 7,551.00             | 0.71               | 177.77           | 7,550.11             | -20.51           | 1.27           |                 | 0.39              | -0.09             | 28.99             |
| 7,675.00<br>7,799.00 | 0.44<br>0.80       | 196.99<br>158.30 | 7,674.10<br>7,798.10 | -21.74<br>-23.00 | 1.16<br>1.35   |                 | 0.26<br>0.43      | -0.22<br>0.29     | 15.50<br>-31.20   |
| 7,799.00             | 0.80               | 52.36            | 7,790.10             | -23.32           | 2.29           |                 | 0.99              | -0.06             | -85.44            |
| 8,048.00             | 0.99               | 110.28           | 8,047.08             | -23.21           | 3.93           |                 | 0.69              | 0.21              | 46.34             |
| 8.172.00             | 1.12               | 128.54           | 8,171.06             | -24.33           | 5.89           | 24.90           | 0.29              | 0.10              | 14.73             |



Survey Report

TVD Reference:

MD Reference:



Company:

NEWFIELD EXPLORATION CO.

Project:

DUCHESNE COUNTY, UT

Site: Well: GRACE 3-16-3-3WH GRACE 3-16-3-3WH

Wellbore: Design: GRACE 3-16-3-3WH GRACE 3-16-3-3WH

North Reference: Survey Calculation Method:

Local Co-ordinate Reference:

Database:

Well GRACE 3-16-3-3WH

WELL @ 5407.80ft (PIONEER 68)

WELL @ 5407.80ft (PIONEER 68) True

Minimum Curvature

EDM 2003.21 Single User Db

#### Survey

| Measured<br>Depth<br>(ft)                                     | Inclination<br>(°)      | Azimuth<br>(°)                                 | Vertical<br>Depth<br>(ft)                                | +N/-S<br>(ft)  | +E/-W<br>(ft)                                    | Vertical<br>Section<br>(ft)                              | Dogleg<br>Rate<br>(°/100ft)           | Build<br>Rate<br>(°/100ft)             | Turn<br>Rate<br>(°/100ft)              |
|---|-------------------------|--|--|--|--|--|---------------------------------------|--|--|
| 8,440.00  | 2.95                    | 163.75   | 8,438.91   | -31.59   | 10.35  | 32.68  | 1.11                                  | 0.91                                   | 16.54                                  |
| 8,451.00  | 2.89                    | 161.70   | 8,449.89   | -32.12   | 10.51  | 33.24  | 1.09                                  | -0.55                                  | -18.64                                 |
| 8,482.00  | 2.99                    | 159.33   | 8,480.85   | -33.62   | 11.05  | 34.79  | 0.51                                  | 0.32                                   | -7.65                                  |
| 8,513.00  | 4.29                    | 145.49   | 8,511.79   | -35.33   | 11.99  | 36.61  | 5.03                                  | 4.19                                   | -44.65                                 |
| 8,544.00  | 7.53                    | 136.21   | 8,542.62   | -37.76   | 14.05  | 39.29  | 10.86                                 | 10.45                                  | -29.94                                 |
| 8,575.00  | 10.83                   | 131.94   | 8,573.22   | -41.17   | 17.62  | 43.15  | 10.86                                 | 10.65                                  | -13.77                                 |
| 8,606.00  | 13.87                   | 132.86   | 8,603.50   | -45.64   | 22.51  | 48.23  | 9.83                                  | 9.81                                   | 2.97                                   |
| 8,637.00  | 16.48                   | 134.56   | 8,633.41   | -51.26   | 28.37  | 54.58  | 8.54                                  | 8.42                                   | 5.48                                   |
| 8,668.00  | 17.96                   | 137.22   | 8,663.02   | -57.85   | 34.75  | 61.96  | 5.41                                  | 4.77                                   | 8.58                                   |
| 8,699.00  | 20.26                   | 138.45   | 8,692.31   | -65.38   | 41.56  | 70.33  | 7.53                                  | 7.42                                   | 3.97                                   |
| 8,730.00  | 23.04                   | 139.14   | 8,721.12   | -73.98   | 49.09  | 79.86  | 9.01                                  | 8.97                                   | 2.23                                   |
| 8,761.00  | 25.55                   | 140.81   | 8,749.38   | -83.75   | 57.28  | 90.63  | 8.39                                  | 8.10                                   | 5.39                                   |
| 8,792.00  | 27.91                   | 141.31   | 8,777.06   | -94.60   | 66.04  | 102.55   | 7.65                                  | 7.61                                   | 1.61                                   |
| 8,824.00  | 30.82                   | 141.13   | 8,804.95   | -106.83  | 75.87  | 115.98   | 9.10                                  | 9.09                                   | -0.56                                  |
| 8,855.00  | 34.56                   | 140.81   | 8,831.03   | -119.83  | 86.42  | 130.27   | 12.08                                 | 12.06                                  | -1.03                                  |
| 8,886.00  | 38.12                   | 140.69   | 8,856.00   | -134.06  | 98.04  | 145.91   | 11.49                                 | 11.48                                  | -0.39                                  |
| 8,917.00  | 41.90                   | 141.49   | 8,879.74   | -149.57  | 110.55   | 162.95   | 12.31                                 | 12.19                                  | 2.58                                   |
| 8,948.00  | 45.63                   | 143.19   | 8,902.12   | -166.54  | 123.64   | 181.52   | 12.62                                 | 12.03                                  | 5.48                                   |
| 8,979.00  | 49.61                   | 144.32   | 8,923.02   | -185.01  | 137.17   | 201.62   | 13.12                                 | 12.84                                  | 3.65                                   |
| 9,010.00  | 53.56                   | 145.51   | 8,942.27   | -204.89  | 151.12   | 223.18   | 13.09                                 | 12.74                                  | 3.84                                   |
| 9,042.00  | 57.23                   | 146.93   | 8,960.45   | -226.78  | 165.76   | 246.82   | 12.04                                 | 11.47                                  | 4.44                                   |
| 9,073.00  | 61.15                   | 148.00   | 8,976.32   | -249.22  | 180.07   | 270.97   | 12.99                                 | 12.65                                  | 3.45                                   |
| 9,104.00  | 64.00                   | 149.57   | 8,990.60   | -272.75  | 194.32   | 296.19   | 10.23                                 | 9.19                                   | 5.06                                   |
| 9,136.00  | 67.32                   | 150.01   | 9,003.78   | -297.95  | 208.99   | 323.11   | 10.45                                 | 10.38                                  | 1.38                                   |
| 9,167.00  | 70.92                   | 150.67   | 9,014.83   | -323.11  | 223.32   | 349.96   | 11.78                                 | 11.61                                  | 2.13                                   |
| 9,198.00  | 74.36                   | 151.13   | 9,024.08   | -348.96  | 237.70   | 377.49   | 11.19                                 | 11.10                                  | 1.48                                   |
| 9,229.00  | 77.23                   | 152.35   | 9,031.69   | -375.43  | 251.93   | 405.62   | 10.01                                 | 9.26                                   | 3.94                                   |
| 9,261.00  | 79.32                   | 152.90   | 9,038.19   | -403.25  | 266.34   | 435.11   | 6.74                                  | 6.53                                   | 1.72                                   |
| 9,292.00<br>9,323.00<br>9,354.00<br>9,385.00<br>9,439.00      | 83.90<br>86.57<br>88.18 | 153.32<br>153.55<br>153.30<br>153.61<br>153.85 | 9,043.33<br>9,047.25<br>9,049.82<br>9,051.24<br>9,052.80 | -430.52<br>-458.02<br>-485.65<br>-513.35<br>-561.75 <b>(</b> - | 280.16<br>293.91<br>307.73<br>321.57<br>→ 345.46 | 463.97<br>493.06<br>522.28<br>551.58<br>602.73           | 7.41<br>7.52<br>8.65<br>5.29<br>0.77  | 7.29<br>7.48<br>8.61<br>5.19<br>0.63   | 1.35<br>0.74<br>-0.81<br>1.00<br>0.44  |
| 9,502.00<br>9,534.00<br>9,566.00<br>9,597.00<br>9,630.00      | 91.11<br>92.84<br>94.13 | 152.55<br>153.32<br>153.51<br>153.31<br>153.66 | 9,053.85<br>9,053.66<br>9,052.56<br>9,050.67<br>9,048.28 | -617.97<br>-646.47<br>-675.07<br>-702.74<br>-732.19            | 373.86<br>388.42<br>402.73<br>416.58<br>431.27   | 662.23<br>692.41<br>722.66<br>751.92<br>783.07           | 2.65<br>5.38<br>5.44<br>4.21<br>1.08  | 1.67<br>4.81<br>5.41<br>4.16<br>0.21   | -2.06<br>2.41<br>0.59<br>-0.65<br>1.06 |
| 9,693.00<br>9,724.00<br>9,756.00<br>9,819.00<br>9,882.00      | 90.74<br>90.93<br>92.59 | 154.93<br>152.23<br>152.58<br>156.19<br>155.66 | 9,043.60<br>9,042.23<br>9,041.76<br>9,039.82<br>9,036.91 | -788.79<br>-816.52<br>-844.88<br>-901.65<br>-959.11            | 458.52<br>472.30<br>487.12<br>514.34<br>540.01   | 842.80<br>872.11<br>902.19<br>962.08<br>1,022.44         | 2.02<br>14.46<br>1.24<br>6.30<br>0.86 | 0.19<br>-11.55<br>0.59<br>2.63<br>0.19 | 2.02<br>-8.71<br>1.09<br>5.73<br>-0.84 |
| 9,945.00<br>10,009.00<br>10,072.00<br>10,136.00<br>10,199.00  | 92.78<br>92.73<br>93.00 | 158.44<br>160.38<br>163.66<br>167.72<br>169.11 | 9,033.73<br>9,030.46<br>9,027.43<br>9,024.23<br>9,020.82 | -1,017.04<br>-1,076.87<br>-1,136.72<br>-1,198.64<br>-1,260.26  | 564.55<br>587.02<br>606.44<br>622.24<br>634.87   | 1,083.12<br>1,145.41<br>1,207.31<br>1,270.79<br>1,333.54 | 4.45<br>3.06<br>5.20<br>6.35<br>2.23  | 0.59<br>-0.47<br>-0.08<br>0.42<br>0.32 | 4.41<br>3.03<br>5.21<br>6.34<br>2.21   |
| 10,262.00<br>10,326.00<br>10,389.00<br>10,453.00<br>10,516.00 | 92.90<br>93.58<br>93.88 | 169.35<br>170.15<br>171.76<br>174.77<br>176.11 | 9,016.99<br>9,013.27<br>9,009.71<br>9,005.54<br>9,001.79 | -1,322.04<br>-1,384.91<br>-1,447.02<br>-1,510.44<br>-1,573.13  | 646.62<br>657.99<br>667.88<br>675.37<br>680.37   | 1,396.33<br>1,460.16<br>1,523.04<br>1,586.89<br>1,649.68 | 0.98<br>1.85<br>2.77<br>4.72<br>2.58  | 0.90<br>-1.36<br>1.08<br>0.47<br>-1.46 | 0.38<br>1.25<br>2.56<br>4.70<br>2.13   |



Survey Report



Company:

NEWFIELD EXPLORATION CO.

Project:

DUCHESNE COUNTY, UT

Site: Well: GRACE 3-16-3-3WH GRACE 3-16-3-3WH

Wellbore: Design: GRACE 3-16-3-3WH GRACE 3-16-3-3WH Local Co-ordinate Reference:

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Well GRACE 3-16-3-3WH

WELL @ 5407.80ft (PIONEER 68)

WELL @ 5407.80ft (PIONEER 68)

True

Minimum Curvature

EDM 2003.21 Single User Db

#### Survey

| Measured<br>Depth<br>(ft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Vertical<br>Section<br>(ft) | Dogleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| 10,643.00                 | 92.84              | 175.30         | 8,995.70                  | -1,699.67     | 689.28        | 1,776.28                    | 1.54                        | 0.40                       | -1.49                     |
| 10,706.00                 | 93.64              | 175.97         | 8,992.14                  | -1,762.38     | 694.06        | 1,839.07                    | 1.66                        | 1.27                       | 1.06                      |
| 10,769.00                 | 93.52              | 177.85         | 8,988.21                  | -1,825.17     | 697.45        | 1,901.75                    | 2.98                        | -0.19                      | 2.98                      |
| 10,833.00                 | 93.20              | 181.14         | 8,984.46                  | -1,889.04     | 698.01        | 1,965.14                    | 5.16                        | -0.50                      | 5.14                      |
| 10,896.00                 | 93.45              | 179.47         | 8,980.80                  | -1,951.94     | 697.68        | 2,027.42                    | 2.68                        | 0.40                       | -2.65                     |
| 10,959.00                 | 93.44              | 178.12         | 8,977.02                  | -2,014.81     | 699.00        | 2,089.91                    | 2.14                        | -0.02                      | -2.14                     |
| 11,023.00                 | 93.65              | 178.06         | 8,973.06                  | -2,078.65     | 701.13        | 2,153.47                    | 0.34                        | 0.33                       | -0.09                     |
| 11,086.00                 | 93.61              | 178.65         | 8,969.07                  | -2,141.50     | 702.94        | 2,216.00                    | 0.94                        | -0.06                      | 0.94                      |
| 11,149.00                 | 92.22              | 178.49         | 8,965.87                  | -2,204.39     | 704.51        | 2,278.54                    | 2.22                        | -2.21                      | -0.25                     |
| 11.213.00                 | 93.46              | 182.17         | 8.962.69                  | -2,268.30     | 704.14        | 2,341.83                    | 6.06                        | 1.94                       | 5.75                      |
| 11,276.00                 | 93.09              | 181.68         | 8,959.09                  | -2,331.16     | 702.03        | 2,403.85                    | 0.97                        | -0.59                      | -0.78                     |
| 11,340.00                 | 92.90              | 181.85         | 8,955.75                  | -2.395.04     | 700.06        | 2,466.91                    | 0.40                        | -0.30                      | 0.27                      |
| 11,403.00                 | 92.90              | 183.83         | 8,952.56                  | -2,457.88     | 696.94        | 2,528.77                    | 3.14                        | 0.00                       | 3.14                      |
| 11,467.00                 | 92.34              | 181.26         | 8,949.64                  | -2,521.75     | 694.10        | 2,591.69                    | 4.11                        | -0.88                      | -4.02                     |
| 11,530.00                 | 92.90              | 180.01         | 8.946.76                  | -2,584.68     | 693.41        | 2,653.97                    | 2.17                        | 0.89                       | -1.98                     |
| 11,594.00                 | 92.91              | 180.41         | 8,943,51                  | -2,648.59     | 693.17        | 2,717.28                    | 0.62                        | 0.02                       | 0.63                      |
| 11,657.00                 | 92.96              | 179.58         | 8,940.29                  | -2,711.51     | 693.18        | 2.779.64                    | 1.32                        | 0.08                       | -1.32                     |
| 11,720.00                 | 92.71              | 179.46         | 8,937.17                  | -2,774.43     | 693.70        | 2,842.07                    | 0.44                        | -0.40                      | -0.19                     |
| 11,783.00                 | 92.77              | 178.87         | 8,934.16                  | -2,837.35     | 694.62        | 2,904.56                    | 0.94                        | 0.10                       | -0.94                     |
| 11.847.00                 | 92.16              | 177.84         | 8.931.41                  | -2,901.27     | 696.46        | 2,968,14                    | 1.87                        | -0.95                      | -1.61                     |
| 11,910.00                 | 93.09              | 179.65         | 8,928.52                  | -2,964.18     | 697.83        | 3,030.68                    | 3.23                        | 1.48                       | 2.87                      |
| 11,974.00                 | 91.85              | 179.72         | 8.925.76                  | -3.028.12     | 698.19        | 3,094.10                    | 1.94                        | -1.94                      | 0.11                      |
| 12,037.00                 | 91.79              | 179.53         | 8,923.76                  | -3,091.09     | 698.60        | 3,156.56                    | 0.32                        | -0.10                      | -0.30                     |
| 12,100.00                 | 92.90              | 180.05         | 8,921.19                  | -3,154.03     | 698.83        | 3,218.98                    | 1.95                        | 1.76                       | 0.83                      |
| 12,163.00                 | 93.64              | 179.83         | 8,917.59                  | -3,216.93     | 698.90        | 3.281.32                    | 1.23                        | 1.17                       | -0.35                     |
| 12,226.00                 | 94.33              | 179.49         | 8,913.21                  | -3,279.77     | 699.27        | 3,343.66                    | 1.22                        | 1.10                       | -0.54                     |
| 12,289.00                 | 93.79              | 180.06         | 8,908.75                  | -3,342.62     | 699.51        | 3,405,98                    | 1.24                        | -0.86                      | 0.90                      |
| 12,352.00                 | 93.02              | 177.82         | 8,905.01                  | -3,405,49     | 700.68        | 3,468.45                    | 3.75                        | -1.22                      | -3.56                     |
| 12,415.00                 | 93.44              | 176.35         | 8,901.46                  | -3,468.31     | 703.88        | 3,531.13                    | 2.42                        | 0.67                       | -2.33                     |
| 12.478.00                 | 93.34              | 176.68         | 8,897.74                  | -3.531.08     | 707.70        | 3,593.85                    | 0.55                        | -0.16                      | 0.52                      |
| 12,541.00                 | 92.59              | 178.34         | 8,894.48                  | -3,593.93     | 710.43        | 3,656.51                    | 2.89                        | -1.19                      | 2.63                      |
| 12,604.00                 | 93.52              | 177.89         | 8,891.12                  | -3,656.81     | 712.50        | 3,719.10                    | 1.64                        | 1.48                       | -0.71                     |
| 12,668.00                 | 91.54              | 175.89         | 8,888.29                  | -3,720.65     | 715.97        | 3,782.83                    | 4.40                        | -3.09                      | -3.13                     |
| 12,731.00                 | 92.03              | 176.53         | 8,886.33                  | -3,783.48     | 720.13        | 3,845.66                    | 1.28                        | 0.78                       | 1.02                      |
| 12.795.00                 | 92.53              | 177.00         | 8.883.79                  | -3,847.32     | 723.74        | 3,909.42                    | 1.07                        | 0.78                       | 0.73                      |
| 12,858.00                 | 91.59              | 177.94         | 8,881.52                  | -3,910.22     | 726.52        | 3,972.13                    | 2.11                        | -1.49                      | 1.49                      |
| 12,921.00                 | 92.10              | 178.04         | 8,879.49                  | -3,973,15     | 728.73        | 4,034.79                    | 0.82                        | 0.81                       | 0.16                      |
| 12,985.00                 | 93.71              | 177.80         | 8,876.25                  | -4,037.02     | 731.05        | 4,098.40                    | 2.54                        | 2.52                       | -0.38                     |
| 13,049.00                 | 94.08              | 178.11         | 8,871.90                  | -4,100.83     | 733.33        | 4,161.95                    | 0.75                        | 0.58                       | 0.48                      |
| 13,112.00                 | 94.51              | 178.35         | 8,867.18                  | -4,163.63     | 735.27        | 4,224.44                    | 0.78                        | 0.68                       | 0.38                      |
| LAST SVY                  |                    | 475.00         | 0.004.45                  | 4 004 45 -    | -700.40       | 4 000 47                    | 7 27                        | E 00                       | -5.21                     |
| 13,170.00                 | 91.48              | 175.33         | 8,864.15                  | -4,221.45     | 738.46        | 4,282.17                    | 7.37                        | -5.22                      | -0.21                     |
|                           | - PBHL GRA         |                |                           | 4 204 22      | 740.05        | 4,342.07                    | 0.00                        | 0.00                       | 0.00                      |
| 13,230.00                 | 91.48              | 175.33         | 8,862.60                  | -4,281.23     | 743.35        | 4,342.07                    | 0.00                        | 0.00                       | 0.00                      |

#### **Survey Annotations**

| Measured  | Vertical | Local Coor | dinates |          |
|-----------|----------|------------|---------|----------|
| Depth     | Depth    | +N/-S      | +E/-W   | Comment  |
| (ft)      | (ft)     | (ft)       | (ft)    |          |
| 13,170.00 | 8,864.15 | -4,221.45  | 738.46  | LAST SVY |
| 13,230.00 | 8,862.60 | -4,281.23  | 743.35  | PROJ SVY |



Survey Report



Company:

NEWFIELD EXPLORATION CO.

Project:

DUCHESNE COUNTY, UT

Site: Well: GRACE 3-16-3-3WH GRACE 3-16-3-3WH

Wellbore: Design:

GRACE 3-16-3-3WH

Local Co-ordinate Reference:

Well GRACE 3-16-3-3WH

TVD Reference:

WELL @ 5407.80ft (PIONEER 68)

MD Reference:

WELL @ 5407.80ft (PIONEER 68) True

North Reference: **Survey Calculation Method:** 

GRACE 3-16-3-3WH

Minimum Curvature

Database:

EDM 2003.21 Single User Db

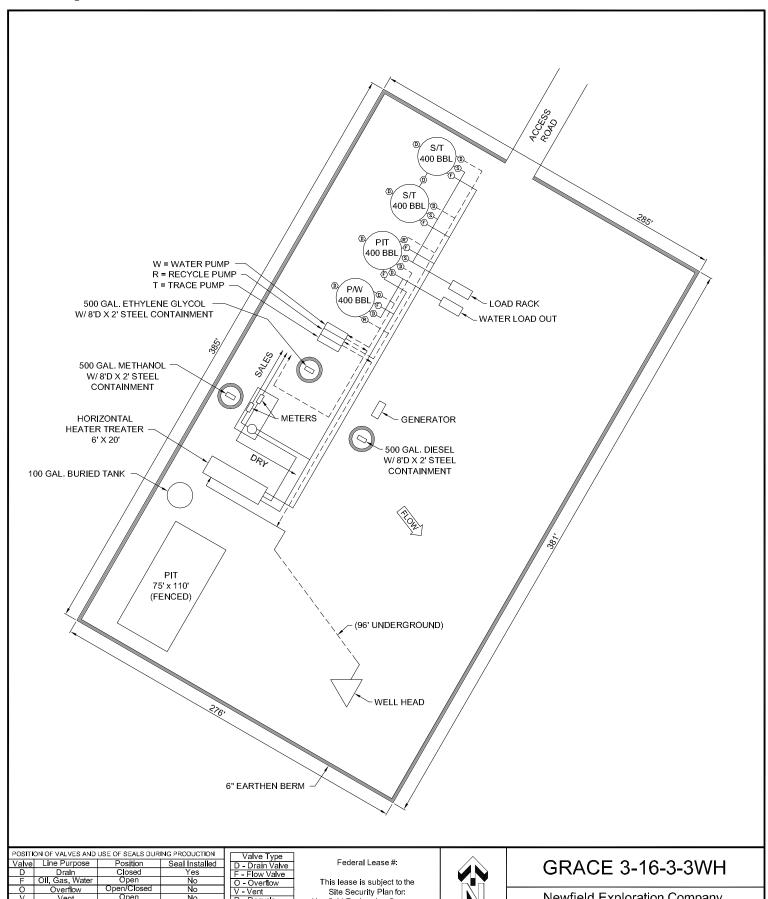
| · · · · · · · · · · · · · · · · · · · | <br>         | <br>  |  |
|---------------------------------------|--------------|-------|--|
| Checked By:                           | Approved By: | Date: |  |
| -                                     | <br>         |       |  |

Sundry Number: 39323 API Well Number: 43013511850000

|  | STATE OF UTAH  |                                   | FORM 9   |
|--|--|-----------------------------------|--|
|  | DEPARTMENT OF NATURAL RESOURCE   |                                   | 5.LEASE DESIGNATION AND SERIAL NUMBER:   |
|  | DIVISION OF OIL, GAS, AND MINI   | NG                                | Patented   |
| SUNDR  | RY NOTICES AND REPORTS C   | ON WELLS                          | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME:  |
|  | oposals to drill new wells, significantly d<br>reenter plugged wells, or to drill horizon<br>n for such proposals. |                                   | 7.UNIT or CA AGREEMENT NAME:   |
| 1. TYPE OF WELL<br>Oil Well                                      |  |                                   | 8. WELL NAME and NUMBER:<br>GRACE 3-16-3-3WH                                       |
| 2. NAME OF OPERATOR:<br>NEWFIELD PRODUCTION CO                   | 9. API NUMBER:<br>43013511850000   |                                   |  |
| 3. ADDRESS OF OPERATOR:<br>1001 17th Street, Suite 200           |  | PHONE NUMBER:<br>303 382-4443 Ext | 9. FIELD and POOL or WILDCAT:<br>NORTH MYTON BENCH                                 |
| 4. LOCATION OF WELL<br>FOOTAGES AT SURFACE:<br>0326 FNL 1488 FWL |  |                                   | COUNTY:<br>DUCHESNE  |
| QTR/QTR, SECTION, TOWNSI<br>Qtr/Qtr: NENW Section:               | HIP, RANGE, MERIDIAN:<br>16 Township: 03.0S Range: 03.0W Merid   | lian: U                           | STATE:<br>UTAH   |
| CHEC   | K APPROPRIATE BOXES TO INDICATE  | E NATURE OF NOTICE, REPOR         | RT, OR OTHER DATA  |
| TYPE OF SUBMISSION   |  | TYPE OF ACTION                    |  |
|  | ACIDIZE [  | ALTER CASING                      | CASING REPAIR  |
| NOTICE OF INTENT Approximate date work will start:               | CHANGE TO PREVIOUS PLANS   | CHANGE TUBING                     | CHANGE WELL NAME   |
| ,  | CHANGE WELL STATUS   | COMMINGLE PRODUCING FORMATIONS    | CONVERT WELL TYPE  |
| SUBSEQUENT REPORT Date of Work Completion:                       | DEEPEN [   | FRACTURE TREAT                    | NEW CONSTRUCTION   |
| 6/25/2013  | OPERATOR CHANGE  | PLUG AND ABANDON                  | PLUG BACK  |
| SPUD REPORT  | PRODUCTION START OR RESUME   | RECLAMATION OF WELL SITE          | RECOMPLETE DIFFERENT FORMATION   |
| Date of Spud:  | REPERFORATE CURRENT FORMATION  | SIDETRACK TO REPAIR WELL          | TEMPORARY ABANDON  |
|  | TUBING REPAIR  | VENT OR FLARE                     | WATER DISPOSAL   |
| DRILLING REPORT Report Date:                                     | WATER SHUTOFF  | SI TA STATUS EXTENSION            | APD EXTENSION  |
|  | WILDCAT WELL DETERMINATION   | OTHER                             | OTHER: Site Facility/Site Security   |
| SEE ATT  | COMPLETED OPERATIONS. Clearly show al  |                                   | Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY July 01, 2013 |
| NAME (PLEASE PRINT) Jill L Loyle                                 | <b>PHONE NUMBE</b> 303 383-4135  | R TITLE<br>Regulatory Technician  |  |
| SIGNATURE<br>N/A   |  | <b>DATE</b> 6/25/2013             |  |

RECEIVED: Jun. 25, 2013

Sundry Number: 39323 API Well Number: 43013511850000



| POSITION OF VALVES AND USE OF SEALS DURING PRODUCTION |                    |                   |                |  | alve Type    |                              |             |                |  |  |
|---|--------------------|-------------------|----------------|--|--------------|------------------------------|-------------|----------------|--|--|
| Valve   | Line Purpose       | Position          | Seal Installed |  | Orain Valve  |                              | Federal Lea | ase #:         |  |  |
| D   | Drain              | Closed            | Yes            |  | low Valve    |                              |             |                |  |  |
| F   | Oll, Gas, Water    | Open              | No             |  | Overflow     | This lease is subject to the |             |                |  |  |
| 0   | Overflow           | Open/Closed       | No             | V - Vent   |              | Site Security Plan for:      |             |                |  |  |
| V   | Vent               | Open              | No             | R - Recycle  |              | Newfield Exploration Company |             |                |  |  |
| R   | Recycle            | Closed            | Yes            |  | Blow Down    | 19 East Pine Street          |             |                |  |  |
| В   | Blowdown           | Open/Closed       | No             |  | Sales Valve  |                              |             |                |  |  |
| S   | Sales              | Closed            | Yes            |  |              | Pinedale, WY 82941           |             |                |  |  |
| POS   | SITION OF VALVES A | ND USE OF SEALS D | URING SALES    | POSITION OF VALVES AND USE OF SEALS DURING WATER DRAIN |              |                              |             |                |  |  |
| Valve   | Line Purpose       | Position          | Seal Installed | Valve  | Line Purpo   | se                           | Position    | Seal Installed |  |  |
| D   | Drain              | Closed            | Yes            | D  | Drain        |                              | Open        | No             |  |  |
| F   | Oil, Gas, Water    | Closed            | Yes            | F  | Oil, Gas, Wa | ater                         | Closed      | No             |  |  |
| 0   | Overflow           | Closed            | Yes            | 0  | Overflow     |                              | Closed      | No             |  |  |
| V   | Vent               | Open              | No             | V  | Vent         |                              | Open        | No             |  |  |
| R   | Recycle            | Closed            | Yes            | R  | Recycle      |                              | Closed      | Yes            |  |  |
| В   | Blowdown           | Closed            | No             | В  | Blowdowi     | n                            | Closed      | No             |  |  |



Newfield Exploration Company NENW Sec 16, T3S, R3W Duchesne County, UT

M.G. AUG 2012



Note: This drawing represents approximate sizes and distances. Underground pipeline locations are also approximated.